marantz ®

Model SA-12S1 User Guide

Super Audio CD Player

SUPER AUDIO CD

DVD VIDEO

COMPACT DISC DIGITAL VIDEO

COMPACT DISC DIGITAL AUDIO

CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN

**CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK,
DO NOT REMOVE COVER (OR BACK).
NO USER-SERVICEABLE PARTS INSIDE.
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.**
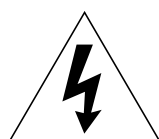
The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.

WARNING
TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

CAUTION: TO PREVENT ELECTRIC SHOCK, MATCH WIDE BLADE OF PLUG TO WIDE SLOT, FULLY INSERT.

ATTENTION: POUR ÉVITER LES CHOCS ÉLECTRIQUES, INTRODUIRE LA LAME LA PLUS LARGE DE LA FICHE DANS LA BORNE CORRESPON DANTE DE LA PRISE ET POUSSER JUSQU'AU FOND.

NOTE:
This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

– Reorient or relocate the receiving antenna.
– Increase the separation between the equipment and receiver.
– Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
– Consult the dealer or an experienced radio/TV technician for help.

NOTE: Changes or modifications may cause this unit to fail to comply with Part 15 of the FCC Rules and may void the user's authority to operate the equipment.

LASER SAFETY

This unit employs a LASER. Only a qualified service person should remove the cover or attempt to service this device, due to possible eye injury.
CAUTION-USE OF CONTROLS OR ADJUSTMENTS OR PERFORMANCE OF PROCEDURE OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.

This Class B digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.

Cet appareil numérique de la Classe B respecte toutes les exigences du Règlement sur le materiel brouilleur du Canada.

IMPORTANT SAFETY INSTRUCTIONS
READ BEFORE OPERATING EQUIPMENT

This product was designed and manufactured to meet strict quality and safety standards. There are, however, some installation and operation precautions which you should be particularly aware of.

1. Read Instructions - All the safety and operating instructions should be read before the appliance is operated.

2. Retain Instructions-The safety and operating instructions should be retained for future reference.

3. Heed Warnings-All warnings on the appliance and in the operating instructions should be adhered to.

4. Follow Instructions-All operating and use instructions should be followed.

5. Cleaning-Unplug this video product from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.

6. Attachments-Do not use attachments not recommended by the video product manufacturer as they may cause hazards.

7. Water and Moisture-Do not use this video product near water- for example, near a bath tub, wash bowl, kitchen sink, or laundry tub, in a wet basement, or near a swimming pool, and the like.

8. Accessories-Do not place this video product on an unstable cart, stand, tripod, bracket, or table. The video product may fall, causing serious injury to a child or adult, and serious damage to the appliance. Use only with a cart, stand, tripod, bracket, or table recommended by the manufacturer, or sold with the video product. Any mounting of the appliance should follow the manufacturer's instructions, and should use a mounting accessory recommended by the manufacturer.

9. Ventilation-Slots and openings in the cabinet are provided for ventilation and to ensure reliable operation of the video product and to protect it from overheating, and these openings must not be blocked or covered. The openings should never be blocked by placing the video product on a bed, sofa, rug, or other similar surface. This video product should never be placed near or over a radiator or heat register. This video product should not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is provided or the manufacturer's instructions have been adhered to.

10. Power Sources-This video product should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supply to your home, consult your appliance dealer or local power company. For video products intended to operate from battery power, or other sources, refer to the operating instructions.

11. Grounding or Polarization-This video product is equipped with a polarized alternating-current line plug (a plug having one blade wider than the other). This plug will fit into the power outlet only one way. This is a safety feature. If you are unable to insert the plug fully into the outlet, try reversing the plug. If the plug should still fail to fit, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the polarized plug.
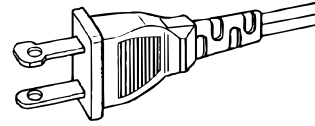
AC POLARIZED PLUG

12. Power-Cord Protection-Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the appliance.

13. Protective Attachment Plug - The appliance is equipped with an attachment plug having overload protection. This is a safety feature. See Instruction Manual for replacement or resetting of protective device. If replacement of the plug is required, be sure the service technician has used a replacement plug specified by the manufacturer that has the same overload protection as the original plug.

14. Lightning-For added protection for this video product receiver during a lightning storm, or when it is left un-attended and unused for long periods of time, unplug it from the wall outlet and disconnect the antenna or cable system. This will prevent damage to the video product due to lightning and power-line surges.

15. Power Lines-An outside antenna system should not be located in the vicinity of overhead power lines or other electric light or power circuits, or where it can fall into such power lines or circuits. When installing an outside antenna system, extreme care should be taken to keep from touching such power lines or circuits as contact with them might be fatal.

16. Overloading-Do not overload wall outlets and extension cords as this can result in a risk of fire or electric shock.

17. Object and Liquid Entry-Never push objects of any kind into this video product through openings as they may touch dangerous voltage points or short-out parts that could result in a fire or electric shock. Never spill liquid of any kind on the video product.

18. Servicing-Do not attempt to service this video product yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.

19. Damage Requiring Service-Unplug this video product from the wall outlet and refer servicing to qualified service personnel under the following conditions:

   a. When the power-supply cord or plug is damaged.

   b. If liquid has been spilled, or objects have fallen into the video product.

   c. If the video product has been exposed to rain or water.

   d. If the video product does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions as an improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the video product to its normal operation.

   e. If the video product has been dropped or the cabinet has been damaged.

   f. When the video product exhibits a distinct change in performance-this indicates a need for service.

20. Replacement Parts-When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer or have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock or other hazards.

21. Safety Check-Upon completion of any service or repairs to this video product, ask the service technician to perform safety checks to determine that the video product is in proper operating condition.

22. Carts and Stands-The appliance should be used only with a cart or stand that is recommended by the manufacturer.

23. An appliance and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the appliance and cart combination to overturn.

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"DTS" and "DTS Digital Surround" are trademarks of Digital Theater Systems,Inc.

Contents

English

Introduction

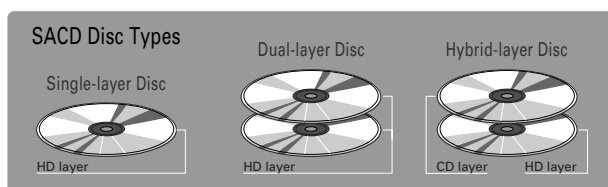## Reality reproduced: Super Audio CD

The Super Audio standard is based on Direct Stream Digital (DSD) technology. This new direct-stream digital format comprises a 1-bit system that has a digital sampling frequency that is 64 times higher than that of conventional audio CD. The results are spectacular: a frequency response of over 50k Hz and a 120 dB dynamic range over the entire audible spectrum. Mixed with as many of the original frequencies as possible, the audio information audible for human ears sounds much more natural.
All audible frequencies are, after all, embedded in the frequency range as emitted by the sound source. A better reproduction does not exist! For the first time your ears will relive reality.

The next standard: hybrid disc

The Super Audio CD is the evolution of the CD that provides ultra-high-quality sound. Additional features, including multi-channel, can be offered. On the high density (HD) Super Audio CD you may have access to separate areas, containing two-channel stereo and multi-channel.

But that is not all! The hybrid version of the SACD guarantees backward compatibility with the installed base of CD and DVD players. In addition to the HD layer, the hybrid disc contains a standard density CD layer with conventional two-channel stereo CD audio information. The two layers are read from the same side of the disc. The HD layer is read by a DVD laser. The bottom reflective layer with conventional CD sound is read by the CD laser through the second, semi-transmissive HD layer.

SACD Disc Types

Single-layer Disc — HD layer

Dual-layer Disc — HD layer

Hybrid-layer Disc — CD layer — HD layer

SA-12S1: reality in sound... and vision

The SA-12S1 will not only surprise you with its superior reproduction of almost all existing audio formats. Connected to your TV, your SA-12S1 presents VCD and DVD video information as perfect digital studio-quality images with truly 3-dimensional digital multi-channel audio. Story sequences can be screened from your own choice of camera angle. You can break down language barriers with sound tracks in as many as eight languages, plus - if available on disc - as many as 16 subtitling languages. Video becomes a new experience. That makes the SA-12S1 an essential component in a state-of-the-art audio-video system.
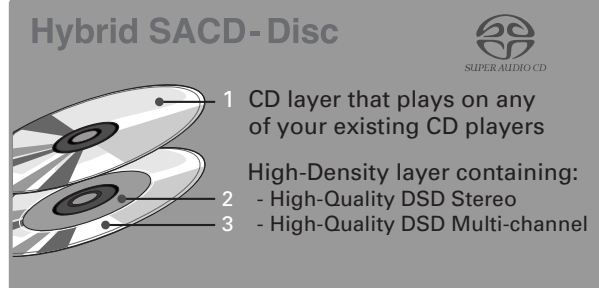
Super Audio CD

SUPER AUDIO CD

You will recognize Super Audio CDs by the logo. There are three types of Super Audio CDs: single-layer, dual-layer and hybrid discs. Each type may contain two areas of recorded information: a High Quality Stereo area and a High Quality Multi-channel area.
- The single layer disc may contain both information areas.
- The dual layer disc may contain both information areas but a double amount of information can be stored on the disc thanks to the second layer.
- The hybrid disc may contain not only both information areas but also a second, standard CD layer, making it playable on standard CD players.
Recorded information may vary per area. This is indicated in the disc inlay. Areas can be selected separately before or during playback. When playing Super Audio CDs, the player can be operated via the keys on the player front and the remote control or via the On-Screen Display on your TV.

Hybrid SACD-Disc

1 CD layer that plays on any of your existing CD players

High-Density layer containing:
2 - High-Quality DSD Stereo
3 - High-Quality DSD Multi-channel

3

Audio CD (CDDA)

 Audio CDs contain music tracks only. You will recognize these CDs by their logo. You can play them in conventional style through a stereo system, using the keys on the remote control and/or front panel, or via the TV using the On-screen Display (OSD).
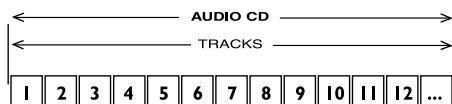
Note: The DTS audio format discs are only compatible with the digital outputs for this player. If you play the discs on this player, distortion sound will come out from the analog outputs.

Digital video

DVD-Video uses state-of-the-art MPEG 2 data compression technology to register an entire movie on a single 5-inch disc. DVD's variable bitrate compression, running at up to 9.8 Mbits/second, captures even the most complex images in their original quality.
The crystal-clear digital images have a horizontal resolution of over 500 lines, with 720 pixels (picture elements) to each line. This resolution is more than double that of VHS, superior to Laser Disc, and entirely comparable with digital masters made in recording studios.
DVD-Video discs conform to either the PAL or NTSC video standard. This dual-standard player can play both types, and presents them in the best possible way on your multi-standard TV screen.
As the universal video system of the future, DVD-Video offers optimal images on any TV screen.

DVD-Video

 You will recognize DVD-Video discs by the logo.
Depending on the material on the disc (a movie, video clips, a drama series, etc.), these discs may have one or more Titles, and each Title may have one or more Chapters. To make access easy and convenient, your player lets you move between Titles and between Chapters.


Video CD

 You will recognize Video CDs by the logo.
Depending on the material on the disc (a movie, video clips, a drama series, etc.), these discs may have one or more tracks, and tracks may have one or more indexes, as indicated on the disc case. To make access easy and convenient, your player lets you move between tracks and between indexes.
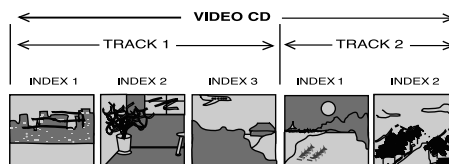
Regional restriction codes (region number)

Regional restriction codes are built in to SA-12S1 players and DVD discs for each sales region. If the regional code of the SA-12S1 player does not match one of the regional codes of the DVD disc, playback is not possible. The region number can be found on the rear panel of the SA-12S1 player. The illustration below shows the regions and corresponding region numbers.
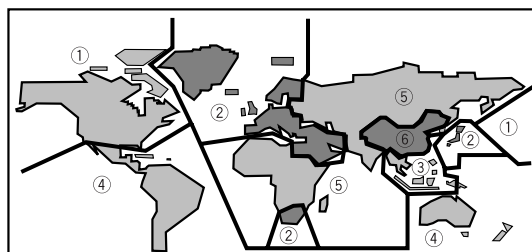
Compact discs

The glossy side shining like a rainbow is the front side of the disc, and the side on which the label is printed is the back.

Unlike conventional turntables for playing analog discs, the SA-12S1 reads the information recorded on the disc from underneath without contacting it using a beam of laser light. Therefore, the performance of a compact disc will not degrade like conventional analog records.

Handle discs carefully so as not to damage or scratch the front side.

To protect the disc, avoid placing it in the following locations:
 - In direct sunlight or near a source of heat like a heater.
  - In a place which is damp or dirty.
  - In a place which could be exposed to rain, such as near a window.

**Always keep the disc surface clean.**
Up to six billion data units are recorded on the front side of the disc. When cleaning the disc surface, always be sure to use a special compact disc cleaner and wipe as shown below.
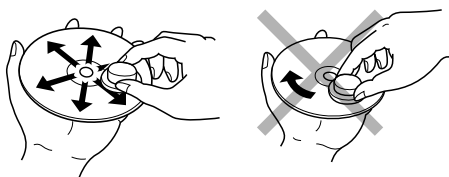

• Do not use conventional record cleaner for analog records, as this will adversely affect the disc surface. Store discs properly by placing them in their disc cases.
• Do not attach a piece of paper or sticker on the label side of disc. When a disc has a piece of plastic tape or rental CD label with paste protruded from the edge or when a disc has a trace of such a sticky object, do not attempt to play the disc. If such a disc is played on the CD player, impossibility of taking out the disc or other malfunction may result.
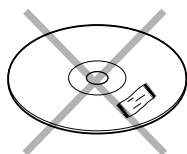
• Write only on the printed side of a CD-R or CD-RW, and only with a soft felt-tipped pen.
• Do not use a disc with a special shape.
  Do not attempt to play a disc with a special shape such as a heart-shaped disc or octagonal disc. Otherwise the equipment malfunction may result
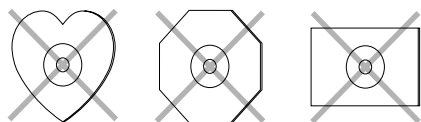
Placement
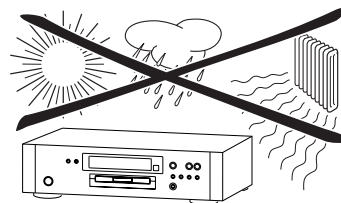
● Place the player on a firm, flat surface.
● Keep away from domestic heating equipment and direct sunlight.
● In a cabinet, allow about 2 inches of free space all around the player for adequate ventilation.
● If the SACD player cannot read SACDs/CDs/DVDs correctly, use a commonly-available cleaning CD/DVD to clean the lens before taking the SACD-player to be repaired. Other cleaning methods may destroy the lens. Always keep the tray closed to avoid dust on the lens.
● When it is moved from a cold to a warm environment, allow the SACD player to acclimatize for at least 2 hours in order to avoid damage. When suddenly placed in a warm environment, the lens may cloud over. Playing an SACD/CD/DVD will not be possible then. Wait until the moisture evaporates.

Functional overview

Front of player

POWER
- switches the player on/off

STANDBY indicator
- lights up red when the player is in Stand-by mode

VIDEO OFF
- turns ON/Off the picture on the TV monitor
- when the menu bar appears, you cannot switch the VIDEO ON/OFF

DISPLAY OFF
- turns ON/OFF the player's display

PL(Dolby Pro Logic) indicator
- indicates when Dolby Pro Logic is selected

D(Dolby Digital) indicator
- indicates when Dolby Digital is selected

Display
- displays the current status of the player

PAUSE
- interrupts audio/video play or moves to the next frame

STOP
- stops audio/video play

PLAY
- starts audio/video play

Disc tray

SOUND MODE
selects required sound mode:
- for SACD: CD, Stereo or Multi-channel (if available)
- for DVD/VCD: Stereo, Dolby Surround, 3D Sound or Multi-channel

OPEN/CLOSE
- opens/closes the disc tray

REPEAT

- selects previous track/title/chapter/index or returns to beginning of current track/tile/chapter/index
- search backward when pressing this key

- selects next track/title/chapter/index
- search forward when pressing this key

10

Rear of player

AC IN
- power supply socket for connection to mains

FILTER switch
- see chapter 'Operation - Enhanced use'

MULTI-CHANNEL AUDIO OUT
(connection to a multi-channel receiver)
- SUB-WOOFER - subwoofer connection
- CENTER - center speaker connection
- SURROUND R/L - surround speaker connections
- FRONT R/L - front speaker connections

DIGITAL AUDIO OUT
opt / coax - Digital connection to an amplifier/a
surround receiver using an optical cable and/or a
coax cable
*No Super Audio CD signals are output.

AUDIO OUT
- audio outputs for a TV

VIDEO OUT (CVBS)
- for connection to a TV with CVBS video inputs

COMPONENT
- for connection to a TV with COMPONENT inputs

S1
- for connection to a TV with S-Video inputs

REMOTE CONTROL INTERNAL/EXTERNAL
- set INTERNAL when you use the Remote Controller (RC-12SAS1)
- set EXTERNAL when you connect to Marantz products

**Caution: Do not touch the inner pins of the rear
panel connectors. Electrostatic discharge may
cause permanent damage to the unit.**

REMOTE CONTROL
- for connection to Marantz products

English
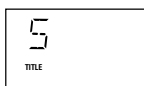
Display

SACD Super Audio CD is inserted
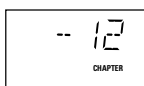**CD** Audio CD is inserted

VCD Video CD is inserted

Indicates the current active sound mode

5 **TITLE**
- number of titles of DVD in Stop mode
- number of current title of DVD in Stop mode

-- 12 **CHAPTER**
number of current chapter of DVD

5 **TRACK**
- number of tracks of SACD/CD/VCD in Stop mode
- number of current track of SACD/CD/VCD in Stop mode

12:09 **TRACK TIME**
track time in hours, minutes and seconds

1:02:09 **TOTAL TIME**
disc/program time in hours, minutes and seconds

2:02:09 **REM TIME**
remaining track time in hours, minutes and seconds when Display mode is set to Remaining time

FTS FTS (Favorite Track Selection) program is activated when CD/DVD/VCD is inserted

SVCD •CD
SACD •STEREO
•MCH

5 -- 12   1:02:09 **FTS**
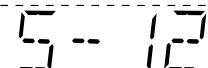
SHUFFLE tracks/chapters are played in random order

DVD VIDEO   TITLE TRACK ((▪▶ CHAPTER
DTS PCM MCH SUR 3D
❚❚ SCAN SHUFFLE TOTAL REM TRACK TIME
A-B REPEAT TITLE CHAPTER TRACK ALL

repeat Title/Chapter/Track/All active

A passage (**A-B**) is being repeated

playback is temporarily interrupted (not active when setting Personal Preferences)

scanning each track/chapter

Sound mode button (for DVD/VCD) is set to 3D Sound

Sound mode button (for DVD/VCD) is set to Dolby Surround

remote control is activated(flashing)

Sound mode button (for DVD) is set to Multi-channel

PCM only is selected

DTS (Digital Theater Sound) audio on the digital output

DVD VIDEO DVD video disc is inserted

Remote control

SOUND MODE
- selects required sound mode
  • for SACD: CD, Stereo or Multi-channel (if available)
  • for DVD/VCD: Stereo, Dolby Surround, 3D sound or Multi-channel

ZOOM
- enlarges video image
ANGLE
- selects DVD camera angle
MENU DISC
- selects DVD-defined menu
MENU SYSTEM
- On-screen Display ON/OFF
▲ ▼ ◄ ►
- up/down/left/right cursor movement in OSD mode
RETURN
- return to previous menu step
DISPLAY
- selects elapsed Time display or Remaining Time display
OK
- acknowledge menu selection

I◄◄ (PREVIOUS)
- previous track/title/chapter/index
► PLAY
- starts audio/video play
►►I (NEXT)
- next track/title/chapter/index
◄◄ (REVERSE)
- search backward
II PAUSE
- pause or still frame/step frame
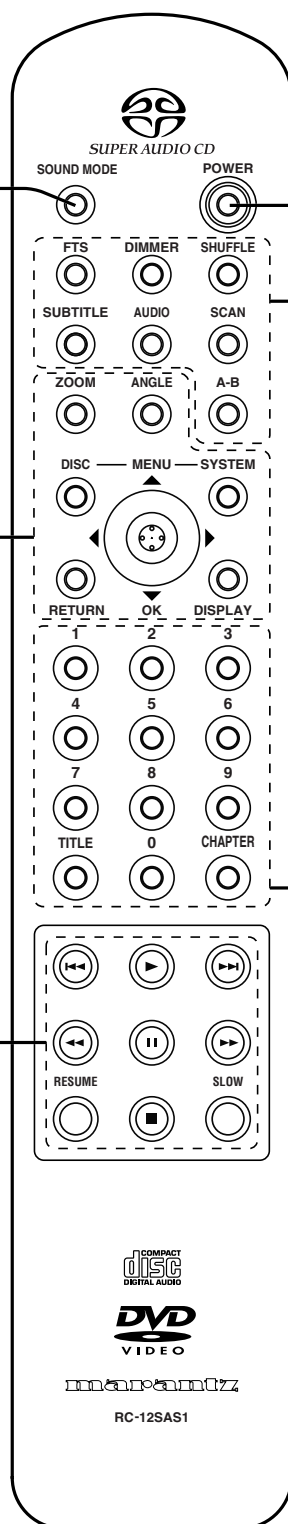**►► (FORWARD)**
- search forward
■ STOP
- stops playback
SLOW
- slow motion
RESUME
- resumes playback

POWER
- switches the player to stand-by ON/OFF

FTS
- switches FTS function ON/OFF
- displays FTS menu
(FTS = Favorite Track Selection)
DIMMER
- adjusts display brightness
SHUFFLE
- playback in random order
SUBTITLE
- subtitle ON/OFF/selects subtitles (DVD/VCD only)
AUDIO
- language selection
SCAN
- playback of the first 10 seconds of each track, chapter, title
(REPEAT) A-B
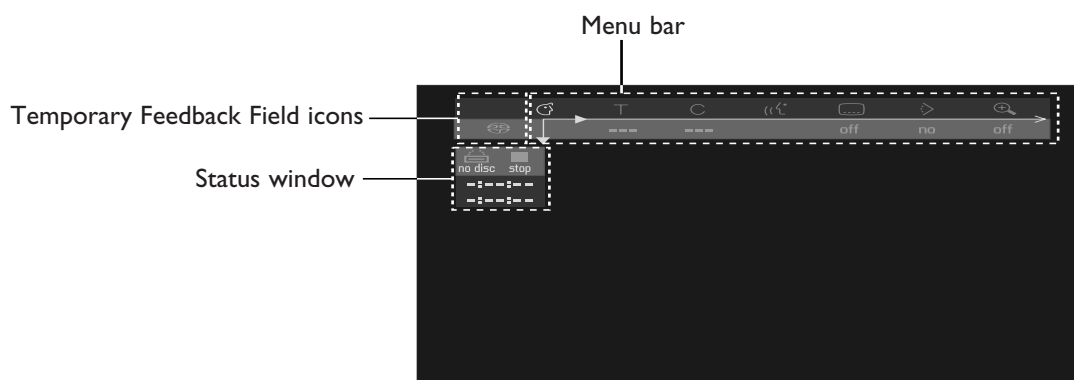- repeats a particular passage (A-B)

0-9
- numeric key pad
TITLE
- selects titles
CHAPTER
- selects chapters

SUPER AUDIO CD

RC-12SAS1

On screen display information

Menu bar

Temporary Feedback Field icons

Status window

no disc   stop

Menu bar/Status window

⌂	User preference	⭢	Sound
T	Track/Title	◁▯▷	Picture-by-picture
C	Chapter	◁	Slow motion
▭	Subtitle language	◁◁	Fast motion
▷	Angle	⊕	Time search
⊕	Zoom	((	Audio language
⭢	Sound Mode	☑	Video FTS

Temporary Feedback Field icons

Icon	Description
scan	Scan
repeat	Repeat All
title	Repeat Title
track	Repeat Track
chapter	Repeat Chapter
shuffle	Shuffle
shuffle	Shuffle Repeat
A-	Repeat A to end
A-B	Repeat A-B
▷	Current camera angle/number of available camera angles
locked	Child Lock On
safe	Child Safe
resume	Resume
✕	Action prohibited

Status window icons

The status window displays the current status of the player with the menu bar if it is set to be activated in the Features menu (see Personal Preferences).

General

no disc   DVD   VCD   error   Disc type

opening opening opening opened

closing closing closing   Tray status

blocked

Note: "blocked" will appear when the disc tray has something problem.

Default screen

The default screen is displayed when the player is in the STOP mode.
It may contain a status window (see 'Status Window') and a 'Temporary Feedback Field,' which gives information concerning prohibited actions, playback modes, available angles, etc.

SUPER AUDIO CD
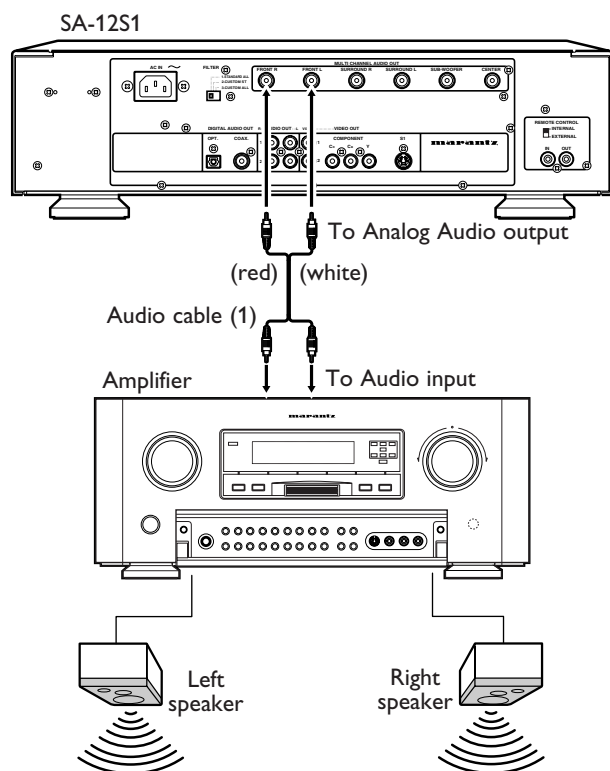
marantz

Preparation

General notes

- Depending on your amplifier/receiver/Stereo System, there are various ways to connect to this player. These are explained in the section below.
- For some connections, settings for digital and/or analog output are required. These settings have to be made in the 'Personal Preferences' menu which is only accessible via your TV screen. In these cases you will need to connect the player to the TV as well.
- Please refer to your amplifier/receiver/Stereo System, TV and any other User Manual(s) as necessary to make the optimal connections.

Caution: Do not connect the player's audio output to the phone input of your audio system.

Connecting to audio equipment - analog

Connecting to an amplifier/receiver equipped with two channel analog stereo

1   Connect the audio Left and Right outputs for Front speaker connection **(1)** to the corresponding connectors on your amplifier, receiver or stereo system using the audio cable.
●   Select "stereo" by pressing **SOUND MODE** when you listen to the SACD and/or DVD sound.

SA-12S1

To Analog Audio output

(red)   (white)

Audio cable (1)

Amplifier   To Audio input

Left speaker   Right speaker

Connecting to a Multi-channel Audio/(Video) receiver with 6 connectors

This SACD player contains a multi-channel decoder. This enables playback of SACDs recorded in Multi-channel. You only need to select Multi-channel using the Sound Mode key.

1   Connect the audio Left and Right outputs for Front speaker connection **(1)** to the corresponding input connectors on your receiver using the audio cable.
2   Connect the audio Left and Right outputs for Surround speaker connection **(2)** to the corresponding inputs on your receiver using an audio cable.
3   Connect the audio outputs for Center speaker and Subwoofer connection **(3)** to the corresponding inputs on your receiver using an audio cable.

SA-12S1

To Video output

(1)   (2)   (3)   To Analog Audio output
(red)   (white)

(red)   (white)   (red)   (white)

Amplifier   To Audio input

To Video input of TV

Sub woofer

Front speaker (Left)   Center speaker   Front speaker (Right)

Rear speaker (Left surround)   Rear speaker (Right surround)
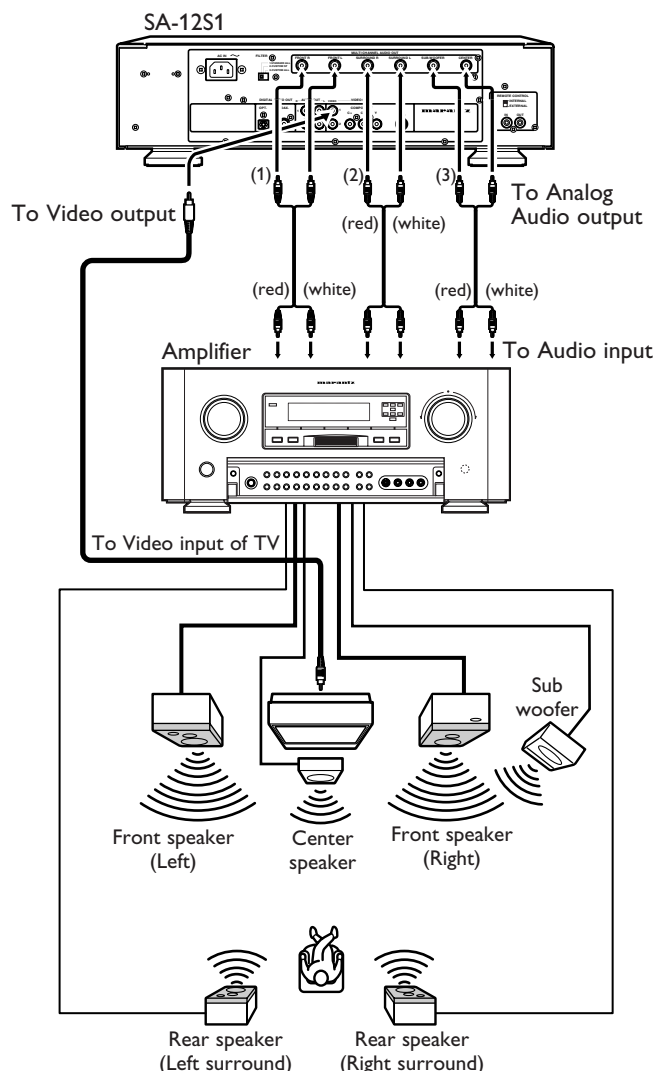
Connecting to an amplifier/receiver equipped with Dolby Pro Logic

For an amplifier/receiver with Dolby Surround, you can connect your SACD player in the same way as described for Dolby Pro Logic.
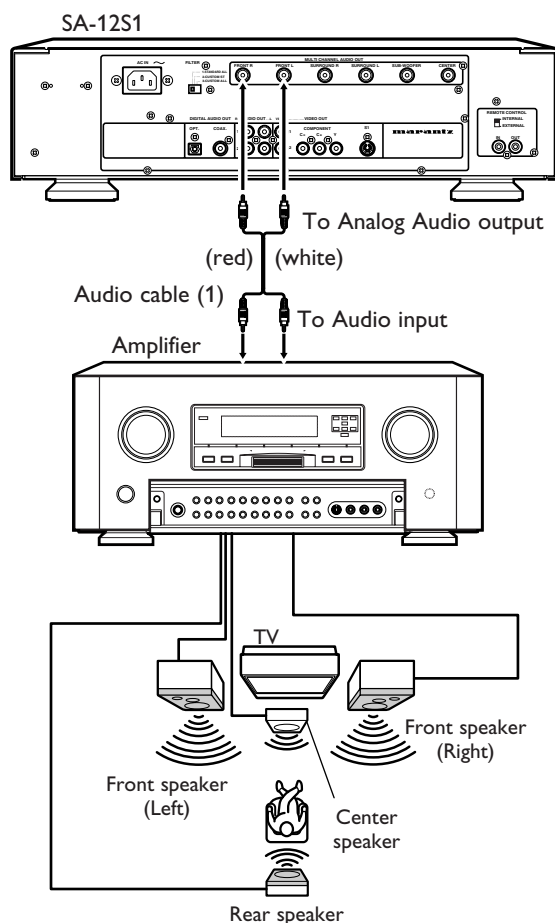
Dolby Pro Logic sound

1 Connect the audio Left and Right outputs for Front speaker connection **(1)** to the corresponding inputs on the Dolby Pro Logic Audio/Video amplifier/receiver using the audio cable supplied.
2 Set Analog Output to Dolby Surround in the 'Personal Preferences' menu.
● You can also select Dolby Surround by pressing **SOUND MODE**. Please operate it in the STOP mode.

If your amplifier/receiver is equipped with a Dolby Digital decoder
● Connect the player as described in the section 'Connecting to an Audio/(Video) receiver with multi-channel decoder'.

If you connect the player to a TV equipped with a Dolby Pro Logic decoder
● Connect the player to the TV as described in the section 'Connecting to a TV'.

SA-12S1

To Analog Audio output

(red)   (white)

Audio cable (1)   To Audio input

Amplifier

TV

Front speaker (Right)

Front speaker (Left)   Center speaker

Rear speaker

Connecting to audio equipment - digital

Connecting to an Audio/(Video) receiver with multi-channel decoder (Dolby Digital, MPEG 2 and DTS)

Digital Multi-channel sound (not for SACD)
For digital connection, you need a multi-channel A/V receiver that supports one or more of the DVD audio formats supported by your SACD player (MPEG 2, Dolby Digital and DTS). Check the receiver manual and the logos on the front of the receiver.

1 Connect the player's digital audio output (optical **4** or coaxial **5**) to the corresponding input on the receiver using the digital audio cable.
2 Select "All" by " 🐱 / ♪ / Digital output " on the menu bar.

SA-12S1

Connect either to Digital output   To Video output

Optical digital cable (4)   75 ohm coaxial cable(5)

Amplifier   To Digital Audio input

To Video input of TV

Sub woofer

Front speaker (Left)   Center speaker   Front speaker (Right)

Rear speaker (Left surround)   Rear speaker (Right surround)
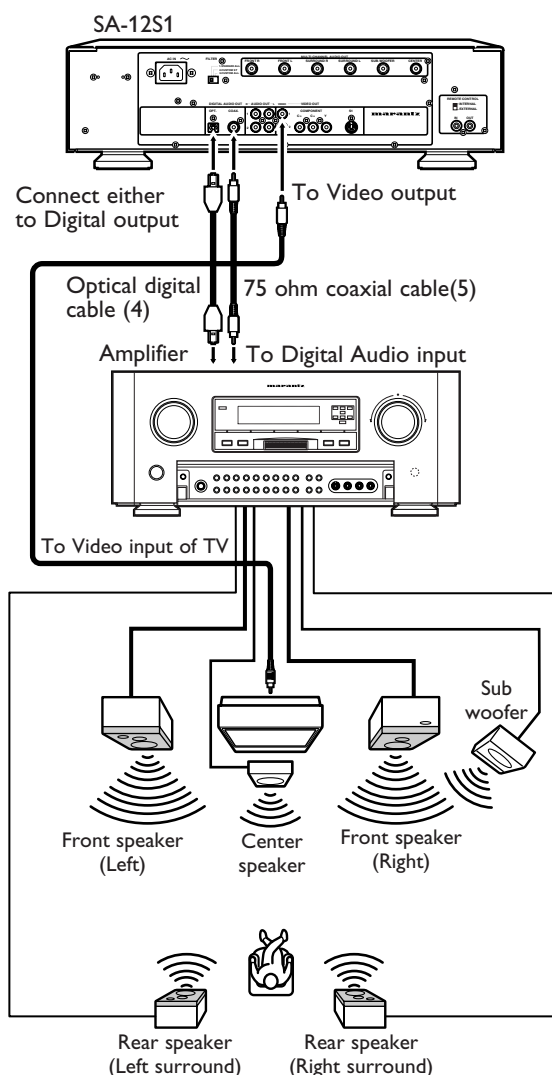
Notes:

- If the audio format of the digital output does not match the capabilities of your receiver, the receiver will produce a strong, distorted sound. The audio format of the DVD disc in play is displayed in the Status Window when changing the audio format.

- 6 Channel Digital Surround Sound via digital connection can only be obtained if your receiver is equipped with a Digital Multi-channel decoder. If your receiver does not contain a decoder, you can make the analog connections as described in the section'Connecting to a Multi-channel Audio/(Video) receiver with 6 connectors' to obtain 6 Channel Digital Surround Sound.

- SACD Multi-channel sound cannot be obtained via digital connection.

- When you connect to the amplifier/receiver which does not have a multichannel decoder, select "PCM only" on the users preference.

Connecting to a TV

Notes
- Depending on your TV, there are various ways to connect the player. These are shown in the illustration below.
- Please refer to your TV, VCR, and any other User Manual(s) as necessary to make the optimal connections.
- Do not connect your SACD-player via your VCR because the video quality could be distorted by the copy protection system.
- Some SOUND MODE settings make unable to hear the sound from TV speakers depending on the discs. See page 19 "SOUND OUTPUT".

Video connection

1 Connect the VIDEO OUT socket **(6)** to the corresponding socket on the TV using the video cable.

2 If you wish to receive the sound via your TV, connect the AUDIO OUT Left and Right output sockets to the corresponding sockets on the TV using the audio cable.

S1 connection

1 Connect the S1 OUT socket **(7)** to the corresponding socket on the TV using an S-Video cable.

● If you wish to receive the sound via your TV, connect the AUDIO OUT Left and Right output sockets to the corresponding sockets on the TV using the audio cable.

Note: S1 connection allows you to separate color and brightness signal to be transmitted.

COMPONENT connection

1 Connect the COMPONENT sockets **(8)** to corresponding sockets on the TV using the video cables.

2 If you wish to receive the sound via your TV, connect the AUDIO OUT Left and Right output sockets to the corresponding sockets on the TV using the audio cable.

Note: COMPONENT connection allows you to enjoy higher quality picture playback than S1 connection.

13
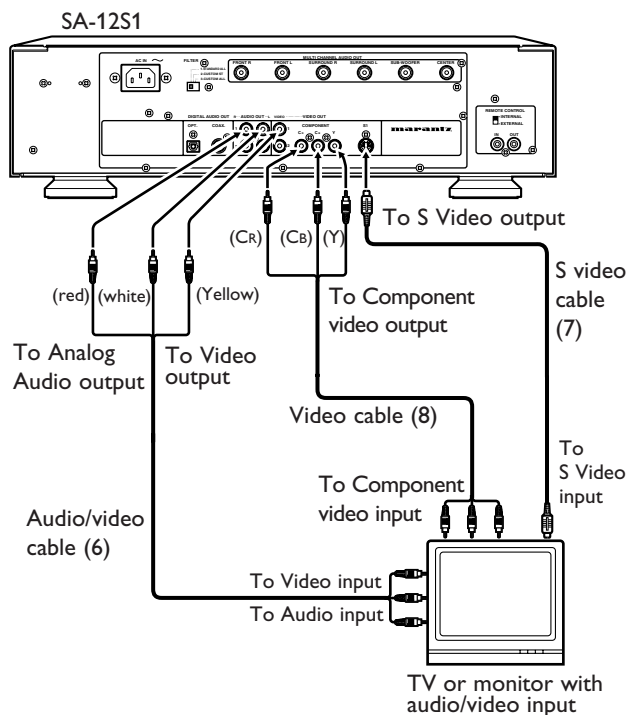
6 Channel settings - DVD only

Front speaker
L (Large) : When the front speakers can reproduce low
frequency signals below 120Hz
S (Small) : When the front speakers cannot reproduce
low frequency signals below 120Hz

Center Speaker
L (Large) : When the center speaker can reproduce low
frequency signals below 120Hz
S (Small) : When the center speaker cannot reproduce
low frequency signals below 120Hz
Off   : When the center speaker is not connected

Surround speakers
L (Large) : When the surround speakers can reproduce
low frequency signals below 120Hz
S (Small) : When the surround speakers cannot
reproduce low frequency signals below 120Hz
Off   : When the surround speakers are not
connected

Subwoofer
On   : When you connect a subwoofer
Off   : When a subwoofer is not connected
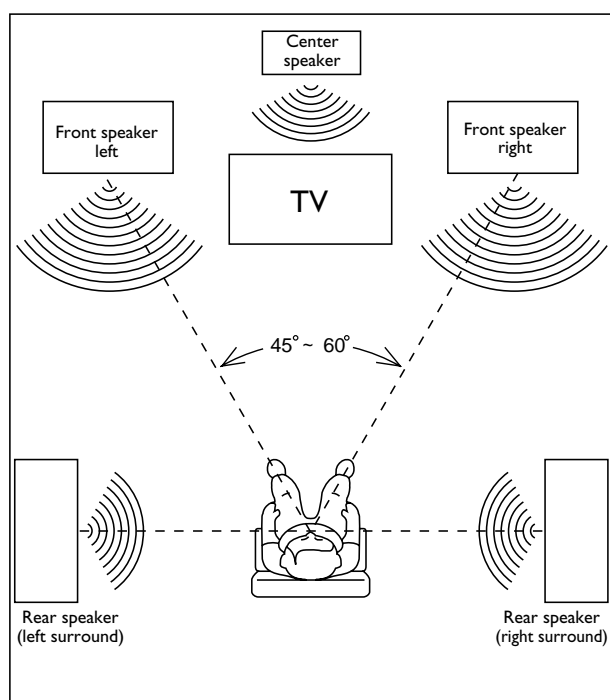
Delay times - DVD only

Your SACD player is set to correctly reproduce synchronized Digital Surround Sound in a listening area where the surround speakers are about 150cm nearer to the listening position than the front speakers and the center speaker is in line with the front speakers. To adjust for other listening-area arrangements, adapt delay times of the center and surround speakers following:

Digital Surround
Measure the distances in centimeters from the front speaker plane and from the surround speaker plane to the listening positioning plane.
Subtract the surround distance from the front distance and divide by 30. The result is the required Surround Channel delay time in milliseconds.
If the center speaker is on the front speaker plane, no center speaker delay is needed. You can adjust the delay time in the "User Preference Settings". See Personal preferences - Sound - Speaker Settings. If, however, it is nearer to the listening position, measure the distance in centimeters between the front and center speaker planes and divide by 30. The result is the required Center Channel delay time in milliseconds.
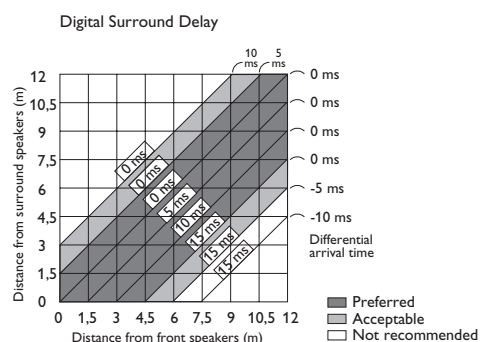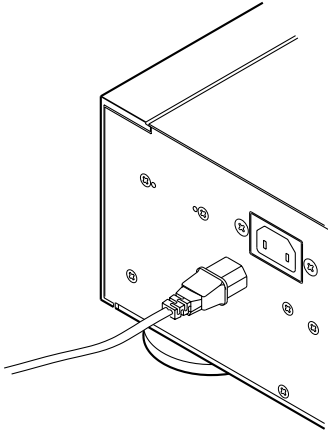
Dolby Pro Logic
If the delay times for Surround Channel and Center Channel are set for Digital Surround mode, the delay times for Dolby Pro Logic mode will automatically be calculated and set.

Connecting the power supply

1   Plug the power cable into AC IN.
2   Plug the male end of the cord into the mains.

Note: As long as this player is connected to mains, it still keeps loosing the power. Please plug off the AC cord if you want to save the electricity fee.

Infrared remote control

Loading the batteries

1   Open the battery compartment cover.
2   Insert two 'AAA' (R-03) batteries as indicated inside the battery compartment.
3   Close the cover.

Caution: Do not use old and new batteries together. Also never use different types of batteries together(standard, alkaline, etc.)
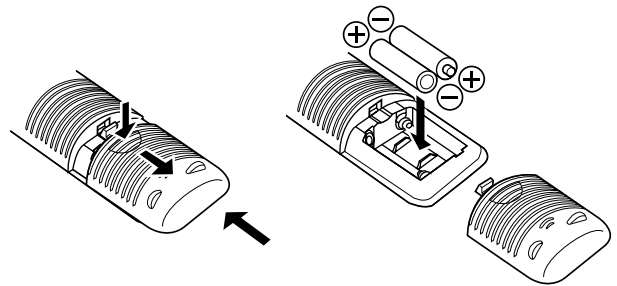
Remote control
Operate the remote control unit (RC-12SAS1) within a distance of approx. 5 m from the infrared signal reception window (remote sensor) on the front of the SACD player.
Remote control operation may not be possible if the remote control unit's transmitter is not pointing in the direction of the remote sensor or if there is an obstruction between the transmitter and the remote sensor.

Remote control operating range

Remote control unit   RC-12SAS1

English
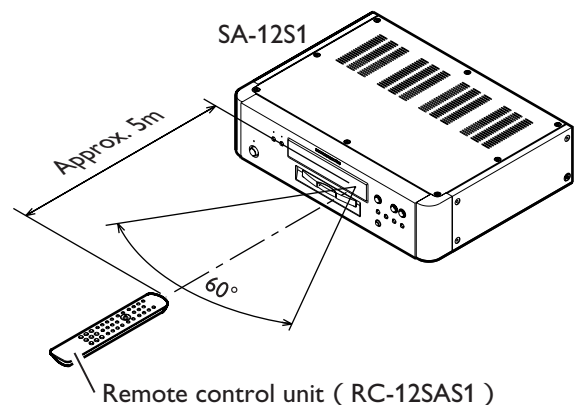
Remote control device code

Changing the programmable remote control code, this player can be played with another Marantz DVD player at the same time.
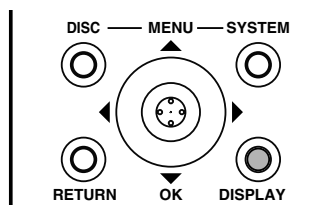The default setting is Code 1

Programming the player to respond to Code 2
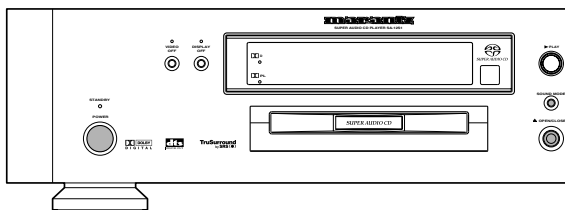
1   Press **POWER** on the player to turn off.
2   Press **SOUND MODE** and ▲ **OPEN/CLOSE** together when turning **ON** this player pressing by **POWER**.
    ➤ The player will now be programmed to respond to Code 2.
    ➤ When steps **1** and **2** are repeated the system code is set to Code 1 again.

Selecting the remote control code

●   Press **DISPLAY** and either **1** or **2** together on the remote control to select code **1** or **2**.
    ➤ The remote control will now set to the remote control code of your choice.
    ➤ This action can be repeated whenever necessary.

The Speaker Setting of SACD for Multichannel Audio

We recommend you to use ITU (International Telecommunication Union) speaker setting because SACD multichannel discs are recorded and mixed down to hear the best quality sound when this setting are used. The basic settings are 3 speakers for front and 2 for back since multichannel discs have basically 5 channeled mixed down, but there are some discs which can be used the 6th speaker (sub-woofer). (See your multichannel disc information.)

The 2-front, 1-center, and 2-surround speakers should be set on the circle from the listening point as shown below. Sub-woofer can be located any place in your room. (See the users manual of your sub-woofer.)

Note: When you use different sizes of speakers, please adjust the volume balances by your amplifier/surround receiver.

You can also use the 5.1 channel surround setting for DVD but you might feel different presence than the ITU recommended.
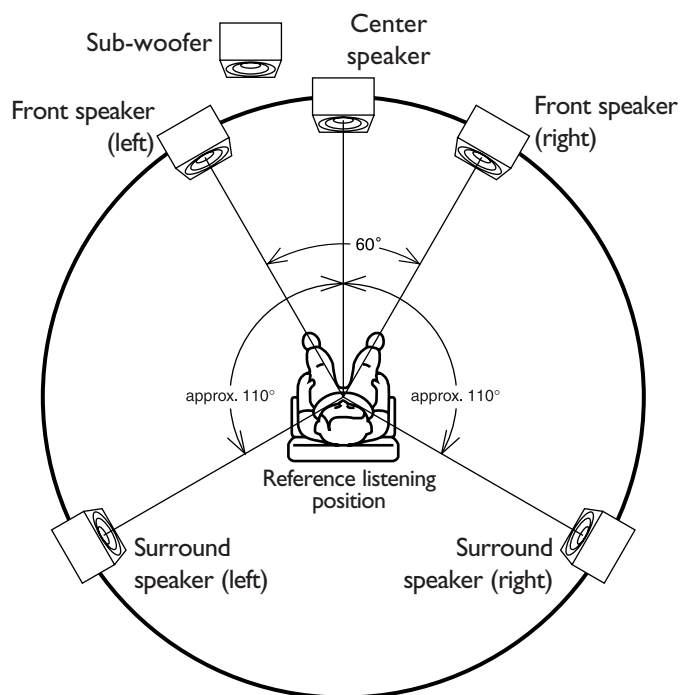
Operation

General explanation

About this manual
When playing DVDs the player may not respond to all operating commands. Some DVDs are produced in a way that requires specific operation or allows only limited operation during playback. In this case, please refer to the instructions of the discs. When a ⌧ appears on the TV screen, the operation is not permitted by the player or the disc.

Remote control operation
- Most operations can be performed with the remote control. Always point the remote control directly at the player, making sure there are no obstacles.
- When there are corresponding keys on the front panel, these can also be used.

Menu bar operation
- A number of operations can also be performed by function of the menu bar on the screen. The menu bar can be activated by pressing the keys on the remote control: MENU SYSTEM, TITLE, CHAPTER, Angle, Audio, Subtitle, Zoom and FTS.
- The following functions can be operated via the menu bar:
  - Personal Preferences;
  - Track/title selection;
  - Chapter selection;
  - Audio language selection;
  - Subtitle language selection;
  - Angle selection;
  - Zoom;
  - Video FTS selection;
  - Sound mode;
  - Picture-by-picture;
  - Slow motion;
  - Fast motion;
  - Time search.
- The various items can be selected using the ◀ ▶ (left/right cursor) keys or by pressing the relevant keys on the remote control.
- By pressing **MENU SYSTEM** the menu bar will disappear from the screen.
- When selecting an item in the menu bar, the selected item will be highlighted and the cursor keys (on the remote control) for operating the function are displayed below the icon.
- < or > indicates that more items are available at the left/right hand side of the menu bar. Press ◀ ▶ (left/right cursor) to select these items.

Switching on
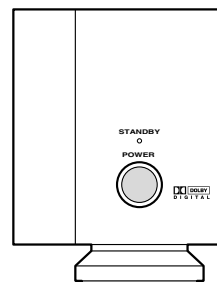
1   If necessary, switch on the TV and select the video input for your SACD player.
2   Press **POWER** on the player.
    ➤ The player will be in the standby mode.
3   Press **POWER** on the remote control or ■ **STOP** on the player.
    ➤ The player display will light up.
    ➤ If the player is connected to the TV, the start-up screen will appear.

♙ Personal preferences

In this mode you can set your personal preferences for a number of player features. After selected ♙ (face mark) in the menu bar, use ▼ (down cursor). The personal preferences will be appeared.

General operation

DISC — MENU — SYSTEM

RETURN   OK   DISPLAY
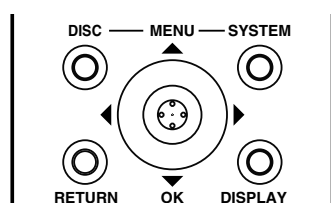
● Press **MENU SYSTEM** on the remote control.
● Select ♙ in the menu bar and press ▼ (down cursor).
   ➤ The Personal Preferences menu will appear.
● Use the ◀ ▶ ▲ ▼ (left/right/up/down) keys to toggle through the menus, sub-menus and sub-menu options.
   ➤ When a menu item is selected, the cursor keys (on the remote control) for operating the item will be displayed next to the item.
● Press **OK** to confirm and return to the main menu.

The following items can be adapted:

◌ Picture

TV Shape
If you have a wide screen (16:9) TV, select 16:9.
If you have a regular (4:3) TV, select 4:3.
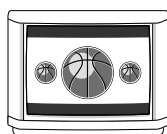In this case you can also choose between:
Letterbox for a 'wide-screen' picture with black bars top and bottom, or Pan Scan, for a full-height picture with the sides trimmed, provided these options are available on the disc in play. If a disc has Pan Scan, the picture will then move (scan) horizontally to keep the main action on the screen.
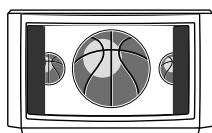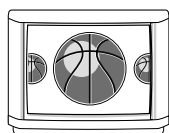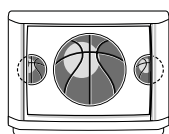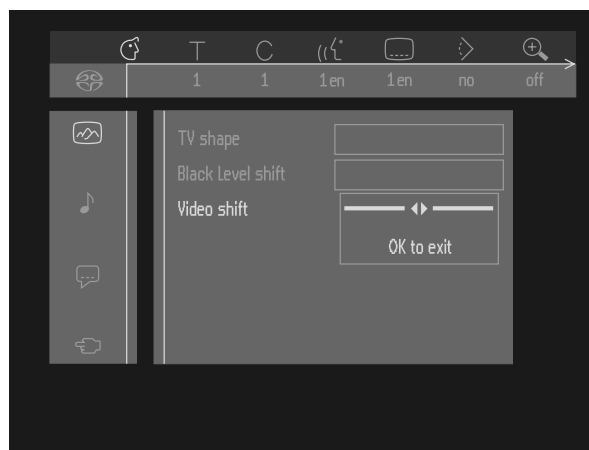

VIEWING ON 16:9   **VIEWING ON 4:3**

LETTERBOX   **PAN SCAN**

Black level shift (NTSC only)
Adapts the color dynamics to obtain richer contrasts.
Select ON or OFF.

Video shift
Factory setting is such that the video will be centered on your screen. Use this setting to personalize the position of the picture on your TV by scrolling it to the left or right.

♪ Sound

Digital output

Off	: Digital output will not come out for both DVD and CD
PCM only	: Digital output for only 2-channel PCM sound
All	: Digital output for 2 channel PCM and multi-channel sound

PCM output
This will switch 48 kHz and 96 kHz of sampling frequency for DVD digital output.0

Analog output
Select Stereo, Dolby Surround, 3D Sound or Multi-channel.

Stereo : Select this setting when you choose 2-channel stereo sound.

Multi-channel : Select this setting when using a Multi-channel audio/(video) receiver with six inputs. In this mode, the player will perform Dolby Digital 5.1-channel decoding when applicable, and Dolby Pro Logic decoding on DVD-Video and Video-CD discs with 2-channel soundtracks. Dolby Pro Logic cannot be decoded when (Super) Audio CD discs are played.

Dolby Surround : Select this setting if your equipment has a Dolby Surround Pro Logic decoder. This setting is Dolby Surround compatible down mixed from multi-channel sound.

3D-Sound : Select this setting when you play surrounded sound by 2 speakers. Using the SRS TruSrurround technique, your 2 speakers make you fell surround sound such as driving the multiple speakers.

Night Mode
Optimizes the dynamics of the sound with low-volume playback. This setting can only be used with discs that support the Night Mode feature.

Speakers
Allows you to select speaker settings, volume balance and delay time. You can check the speakers' balance in this made, too. Speaker settings are only active on the MULTI CHANNEL AUDIO OUT. This setting cannot be used when SACD disc (either Stereo or Multichannel) us played.
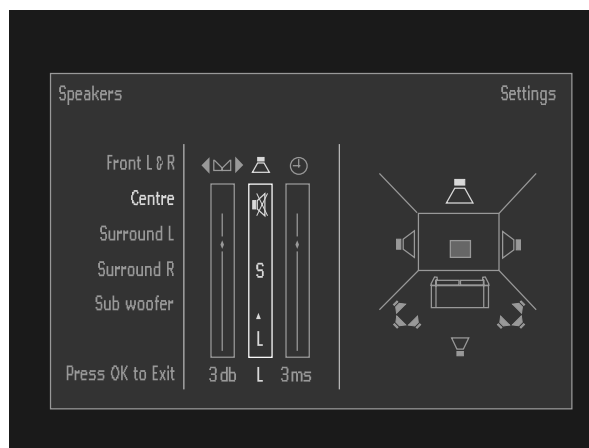
Karaoke vocal
Select this setting to ON when a multi-channel karaoke DVD is played. The karaoke channels on the disc will then be mixed to a normal stereo sound.

SOUND OUTPUT

Audio Format		SOUND MODE	Multi channel audio out				Audio out	Digital audio out	
			Front L/R	Center	Surround L/R	Sub woofer	L/R	PCM Only	All
DVD	Dolby Digital or MPEG	Mch	Front L/R	Center	Surround L/R	Sub woofer	Front L/R	Off	Dolby Digital or MPEG
		Surround	2ch Dolby Surround compatible downmix	Mute			2ch Dolby Surround compatible downmix	2ch Dolby Surround compatible downmix	Dolby Digital or MPEG
		Stereo	2ch downmix	Mute			2ch downmix	PCM 2ch Downmix	Dolby Digital or MPEG
		3D	2ch downmix 3D	Mute			2ch downmix 3D	PCM 2ch Downmix 3D	Dolby Digital or MPEG
	DTS	-	Mute	Mute			Mute	Off	DTS
SACD	SACD 2ch	Stereo	2ch	Mute			2ch	Off	Off
	SACD Multi	Mch	Front L/R	Center	Surround L/R	Sub woofer	Center	Off	Off
CD	PCM	-	2ch	Mute			2ch	PCM 2ch	PCM 2ch

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💬 Language

Select the required Menu, Audio and Subtitle language.

Audio language : This selects the spoken language of the DVD disc (if the language is available on the disc.)

Subtitle language: This selects the subtitle language of the DVD disc (if the language is available on the disc.)

Menu : This selects the menu language of the OSD (On Screen Display).

Audio language and Subtitle language can also be adapted via the Menu bar on the screen.

Notes
- Depending on your audio equipments, some audio setting might not be able to work. See 'Connection ' of this manual.'
- Default setting of 'MENU' is 'ENGLISH.' To change the language. Choose your language in MENU of 💬 .

🖐 Features

Sound Mode (SACD only)

Selects the default setting of SACD sound mode (Stereo or Multichannel) when it is loaded. You can change the setting during the playback by **SOUND MODE** on the player or/and the remote control.


Access Control (DVD/VCD only)

Access Control is the function to restrict the DVD/VCD playback. When disc lock is ON, you have to enter a secret-4-PIN-code otherwise the disc cannot be played. Also this can forbid playing the DVD disc which already contains the condition of sexual or violent information.

Status Window

Displays the current status of the player and is displayed together with the menu bar. In STOP mode, it is displayed together with the 'Temporary Feedback' Field in the default screen. See 'the section On-screen Display information'. Factory setting is ON. Select OFF to suppress display of the Status Window.
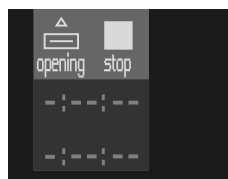
Low Power Stand-by

If this setting is set to ON, the player will go in low-power stand-by when the **POWER** key (remote control) is pressed.

Notes
- This function works only for Europe version.
- Low Power stand-by is selected for this player no matter you choose either ON or OFF.

PBC

This feature allows you to disable or enable the PBC (Playback Control) menu of VCD discs. See 'Special VCD features': Factory settings is ON.
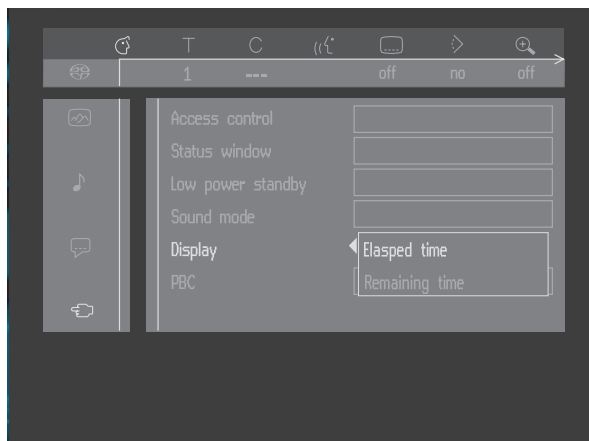
Display information

Display
Elapsed time - during playback the elapsed playing time will be displayed.
Remaining time – during playback the remaining playing time will be displayed.
Display setting can be changed during playback using the DISPLAY key on the remote control.
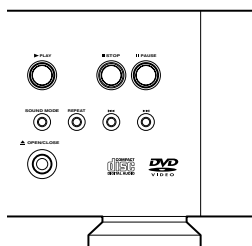

Player Display Dim (via remote control)
This feature allows you to set the display brightness. By repeatedly pressing the **DIMMER** key on the remote control you can select.

# Operation - Audio (Super Audio CD and CD)

Loading SACD or Audio disc

1 Press ▲ **OPEN/CLOSE** on the front of the player. The disc tray opens.
2 Set the disc on the tray. Make sure it is properly inserted in the recess.
3 Gently push the tray, or press ▲ **OPEN/CLOSE**, to close the tray.
➤ *READ* will appear on the player display and in the status window when TV is ON.

When Super Audio CD is inserted, you can select the sound mode (stereo or multichannel) pressing by **SOUND MODE** key if it is the hybrid SACD disc. The current sound mode is shown on the player's display and TV screen.

Playing SACD or Audio disc

● Press ▶ **PLAY** to start playback.
➤ During the playback, the current truck number and the elapsed time will appear on the display.
➤ You can change the time indication in the users preference menu or pressing by **DISPLAY** key on the remote control.
➤ At the beginning of playback, the number of front channels and surround channels will be displayed (e.g. 3/2). If a subwoofer channel is present this will also be displayed (+1).
➤ If the inserted disc is not compatible with the setting of the Sound mode (Stereo/Multichannel) in the Personal Preferences menu, the first available sound mode will start playing.
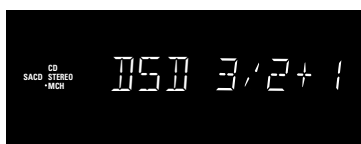
● Press ■ **STOP to stop playing**.
➤ Playback will stop at the end of the disc.

Sound mode - SACD playback
● Press **SOUND MODE** on the player or the remote control to select the desired Sound mode:
Stereo - Super Audio Stereo reproduction.
Multi-channel - Super Audio Multi-channel reproduction.
CD - normal CD stereo reproduction (press ■ **STOP** first, then press **SOUND MODE**).
The selected sound mode is indicated on the display. When you play the multichannel-disc, please make sure your speakers are suet up for multichannel configuration.

Pause
● Press II **PAUSE** during play.
● To return to play, press ▶ **PLAY**.

Search
● To search forward or backward through the disc at 4x normal speed, press ◀◀ **(REVERSE)** or ▶▶ **(FORWARD)** during play.
➤ Search will begin and sound will be muted.
● To step up to 8x normal speed, press ◀◀ **(REVERSE)** or ▶▶ **(FORWARD)** again.
➤ Search will change to 8x speed.
● To return to 4x normal speed, press ◀◀ **(REVERSE)** or ▶▶ **(FORWARD)** again.
● If the TV is on, search speed and direction will be indicated on the screen each time ◀◀ **(REVERSE)** or ▶▶ **(FORWARD)** is pressed.
● To end the search, press ▶ **PLAY**.

Moving to another track
● Press ▶▶I **NEXT** once during play to move (FORWARD) to the next track.
● Press I◀◀ **PREVIOUS** once during play to return to the beginning of the current track. Press I◀◀ **PREVIOUS** once again to move back to the previous track.
● To go specific track directly, enter the track number using the numeric keys **0-9**.

Shuffle
● Press **SHUFFLE** during play.
➤ The tracks will be played in random order.
● To return to normal play, press **SHUFFLE** again.

Repeat track/disc
● To repeat the track, press **REPEAT**.
➤ REPEAT TRACK will appear on the display.
● To repeat the entire disc, press **REPEAT** again.
➤ REPEAT ALL will appear on the display.
● To exit Repeat mode, press **REPEAT** again.

(Repeat) A-B
To repeat a specific sequence:
● Press **(REPEAT) A-B** at your chosen starting point.
➤ A will appear on the player display.
● Press **(REPEAT) A-B** again at your chosen end point.
➤ A-B will appear on the display, and the repeat sequence will begin.
● To exit from the sequence, press **(REPEAT) A-B** again.

Scan
Plays the first 10 seconds of each track on the disc.
● Press **SCAN**.
● To continue play at your chosen track, press **SCAN** again or press ▶ **PLAY**.

FTS (Favorite Track Selection) - Audio CD only

- The FTS function allows you to store your favorite tracks for a particular disc in the player memory.
- Each FTS program can contain up to 20 tracks.
- Each time, the FTS program is set, the each disc information will be placed at the top of the memory in the player. When the memory is full if new program is added, the last program will be removed from the memory.
- When the disc is inserted, the program will automatically start if the disc program is still on the memory.

Storing an FTS program

1 Load a disc and stay in the Stop mode.
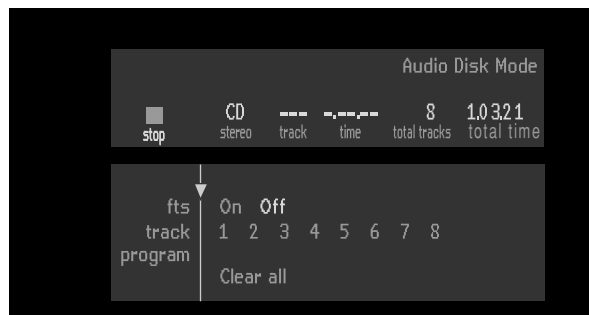
2 Use ▼ (down cursor) to "track"
3 Use ◀ and ▶ (left/right cursor) to select tracks from the list.
To choose the specific track, enter the track number using the numeric keys **0-9**.
4 Store each track pressing by **OK**.
➤ The selected track will be addend in the program and shown on the TV screen.
5 Press **FTS** on the remote control or use ◀ and ▶ (left / right cursor) to set FTS ON/OFF.
6 When your FTS program is complete, press ▶ **PLAY** to start playback. FTS program will be automatically memorized.

Erasing a track from the FTS program

1 Use ▼ (down cursor) to "program."
2 Use ◀ and ▶ (left/right cursor) to select tracks you want to erase form the list. To choose the specific track, enter the track number using the numeric keys **0-9**.
3 Press **OK**.
➤ The track will be erased from the program.

Erasing the complete program
● Use ▼ (down cursor) to Clear All and press **OK**.
➤ The complete FTS program of the disc will be erased.

Access control; disc lock (DVD and VCD)

Activating/deactivating the disc lock

1 In Stop mode, select **Access Control** in the Features menu 〈 〉 using the ▼/▲ (down/up) keys and press ▶ (right cursor).

2 Enter a 4-digit PIN code of your own choice.

3 Enter the code time to confirm.

4 Move to **Child lock** using the ▼/▲ (down/up) keys.
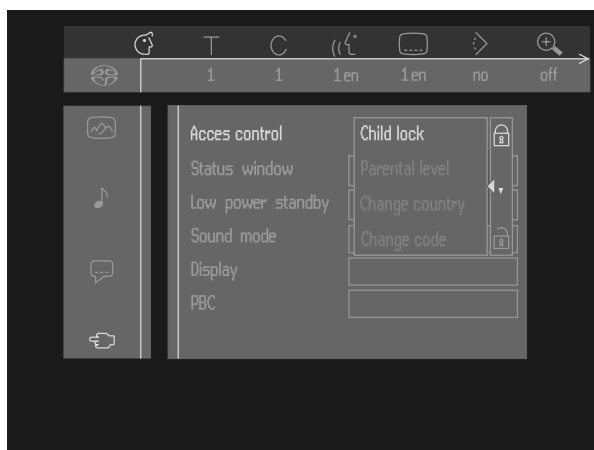
5 Move to 🔒 / 🔓 using the ▶ (right cursor) key.

6 Select 🔒 using the ▼/▲ (down/up) keys.

7 Press **OK** to confirm or ◀ (left cursor) to confirm and press ◀ (left cursor) again to exit from the menu.
➤ Now unauthorized discs will not be played unless the 4-digit code is entered.

8 Select 🔓 to deactivate the disc lock.

Note: Reconfirmation of the 4-digit PIN code is necessary when:
The code is entered for the very first time (see above);
The code is changed (see 'Changing the 4-digit code');
*The code is cancelled (see 'Changing the 4-digit code');*
Both Disc lock and Parental Control are switched Off and the code is requested.

Authorizing discs
● Insert the disc.
➤ The Disc lock dialogue will appear. It will ask to enter your secret code for 'Play Once' or 'Play Always'. When you select 'Play Once.' The disc can play only once when the Disk Lock is ON. If you select 'Play Always', the disc will become child safe (authorized) and can be always played even if the Disc lock is set to ON.

Notes: The player memory maintains a list of up to 80 authorized ('Child safe') disc titles. A disc will be placed on the list when 'Play Always' is selected in the 'child protect' dialogue. Each time a 'child safe' disc is played it will be placed at the top of the list When the list is full and a new disc is added, the last disc on the list will be removed from the list.
Double sided DVD discs may have a different ID for each side. In order to make the entire disc 'child safe', each side must be authorized.
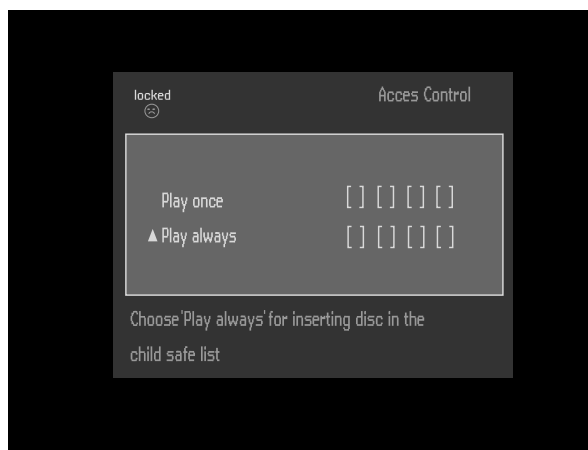
Deauthorizing discs
● Insert the disc.
➤ The disc starts playing automatically.
● Press ■ **STOP** while ☺ is visible.
➤ The ☹ will appear and the disc will be now deauthorized.

*IMPORTANT :*
If you forgot your code, press ■ STOP four times while in the access control PIN code box and exit with OK. Access control is now switched off. You can then enter a new code (twice) as described above.

Access control; Parental control (DVD-Video only)

Movies on DVD discs may contain scenes, which is not suitable for children. Therefore some discs contain 'Parental Control' information that applies to the complete disc or to certain scenes on the disc. These scenes are rated from 1 to 8 and alternative, more suitable scenes are available on the disc. The function ratings are country-dependent.

Activating/Deactivating Parental Control

1   In Stop mode, select **Access Control** in the Features menu ⛁ using the ▼/▲ (down/up) keys and press ▶ (right cursor).
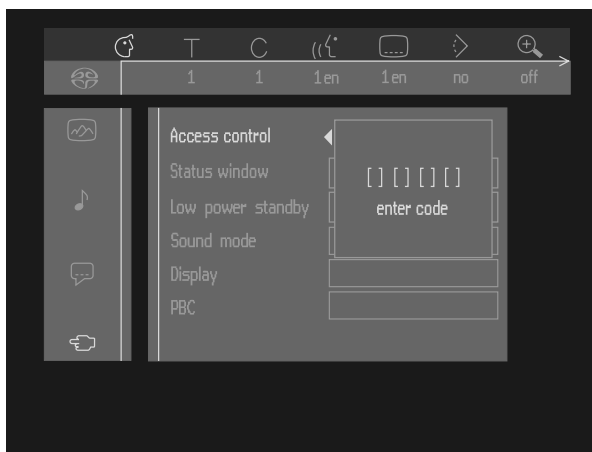

2   Enter your 4-digit PIN code. (You might have to enter it twice to confirm.)
3   Move to **Parental Level** using the ▼/▲ (down/up) keys.
4   Move to the Value Adjustment bar using the ▶ (right cursor) key.
5   Set the rating using the ▼/▲ (down/up) keys or the numeric keys **0-9** on the remote control to select a rating from 1 to 8 for the inserted disc.

Rating 0 (displayed as '– –'):
Parental Control is not activated. The Disc will be played without any protection.

Ratings 1 (child safe) to 8 (adults only):
The disc contains scenes not suitable for children. If you set a rating for the player, all scenes with the same rating or lower will be played. Higher-rated scenes will not be played unless an alternative is available on the disc. The alternative must have the same rating or a lower one. If no suitable alternative is found, play will stop and the 4-digit code must be entered.
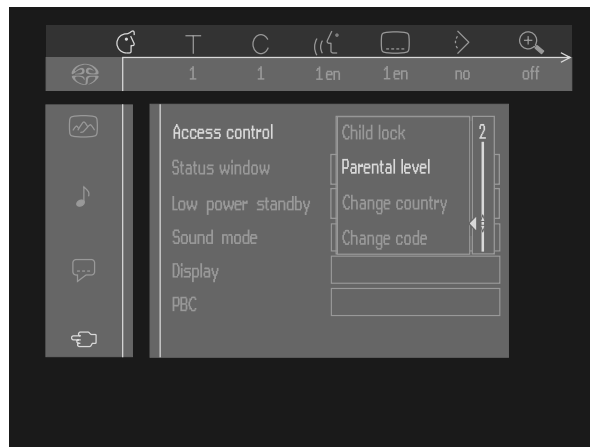
6   Press **OK** or ◀ (left cursor) to confirm and press ◀ (left cursor) again to exit from the menu.

Change country

1   In Stop mode, select **Access Control** in the Features menu ⛁ using the ▼/▲ (down/up) keys and press ▶ (right cursor).
2   Enter your 4-digit Pin code.
3   Move to **Change Country** using the ▼ (down) key.
4   Press the ▶ (right) key.
5   Select a country using ▼/▲ (down/up cursor).
6   Press **OK** or ◀ (left cursor) to confirm and press ◀ (left cursor) again to exit from the menu.

Changing the 4-digit code

1   In Stop mode, select **Access Control** in the Features menu ⛁ using the ▼/▲ (down/up) keys and press ▶ (right cursor).
2   Enter the old code.
3   Move to **Change Code** using the ▼ (down) key.
4   Press the ▶ (right) key.
5   Enter the new 4-digit PIN code.
6   Enter the code a second time and reconfirm with **OK**.
7   Press ◀ (left cursor) to exit from the menu.

IMPORTANT :
*If you forgot your code, press ■ **STOP** four times while in the access control PIN code box and exit with **OK**. Access control is now switched off. You can then enter a new code (twice) as described above.*

Loading DVD or VCD discs
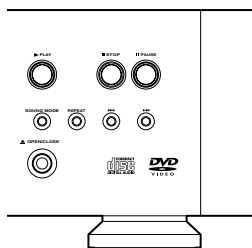
1 Press ▲ **OPEN/CLOSE** on the player. The disc tray will open.
2 Set the disc on the tray. Make sure it is properly inserted in the recess.
3 Gently push the tray, or press ▲ **OPEN/CLOSE**, to close the tray.
   ➤ ᴿᴱᴬᴰ will appear in the status window and on the player display and the disc will start playing automatically.

Note: When unauthorized disc (which is not in the child safe list) is inserted after 'Disc Lock' is ON, this player asks you to enter 4-PIN code to play the disc. See 'Access Control.'

Playing a DVD-video disc

Playing a title
➤After a disc is inserted, it will start playing automatically with information of the disc contents and playing time on the players display and status window. Some disc might ask you to select items to start playing. To select the choices in the disc menu, use the ▼/▲, ◄ / ► (down/up/left/right) keys or the numeric key **0-9** then press **OK**.
➤ The disc title and chapter number will be displayed in the menu bar and the player display. The elapsed time will be indicated on the status window and the player display.
➤ At the beginning of each title, the number of front channels and surround channels will be displayed (e.g. 3/2). If a subwoofer channel is present this will also be displayed (+1).
➤ If the audio format (MPEG 2, Dolby Digital, etc.) of a title changes during play, this will be indicated on the display.
● You can use the **SOUND MODE** key to select Stereo, Dolby Surround, 3D-Sound or Multi-channel reproduction.
   ➤ Please operate to change the sound mode in stop mode.

● Press ■ **STOP** to stop playing.
   ➤ The default screen will appear with information of the current status.
● You can resume to watch the program at the point of the scene you stop last time. Press **RESUME**.
   ➤ The resume function allows you to play not only to the disc in the player, but also the last four discs you have played. After start playback, press ►
   PLAY again during the Resume icon ▌► appears on the screen.

Note: Because DVD discs have their own region codes which are only available to be played in each specific area, the disc has to be compatible with the players. If you load a disc which has different a region cord from this player has, you cannot play the disc on this player.

Playing a video CD

Playing a disc
➤ After a disc is inserted, it will start playing automatically with information of the disc contents and playing time on the players display and status window. Some disc might ask you to select items to start playing. To select the choices in the disc menu, use the ▼/▲, ◄ / ► (down/up/left/right) keys or the numeric key **0-9** then press **OK**.
➤ The disc title and chapter number will be displayed in the menu bar and the player display. The elapsed time will be indicated on the status window and the player display.
● you can use the **SOUND MODE** key to select Stereo, Dolby Surround, 3D-Sound or Multi-channel reproduction.
   ➤ Please operate to change the sound mode in stop mode.
● Press ■ **STOP** to stop playing.
   ➤ The default screen will appear with information of the current status
● You can resume to watch the program at the point of the scene you stop last time. Press **RESUME**.
   ➤ The resume function allows you to play not only to the disc in the player, but also the last four discs you have played. After start playback, press ►
   PLAY again during the Resume icon ▌► appears on the screen.

General features

In this description, most functions are explained by using the remote controller. You can also use same operation using the menu bar.
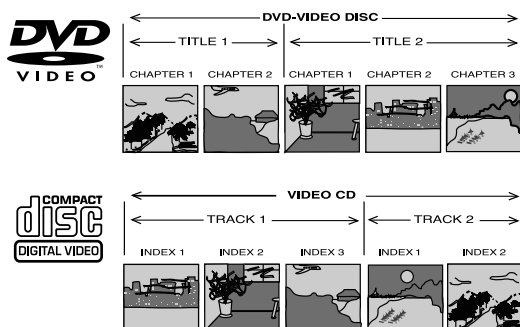
Moving to another title/track
When a disc has more than one title or track, you can move to another title as follows:
● To select the next title/track, press **TITLE**, then press ▶▶ **NEXT** once during playback.
● To return to the beginning of the current title/track, press **TITLE** then press ◀◀ **PREVIOUS** once during playback. To move back to the previous title/track, press ◀◀ **PREVIOUS** once again.
● To go to the specific title or track directly, press **TITLE**, then enter the title number using the numeric keys **0-9**.
Note: If the number has more than one digit, press the keys in rapid succession.

Note: There are "chapters" in a "title" on the DVD discs, and "indexes" in a "track" on the VCD discs. The name of "TITLE" and "CHAPTER" keys on the remote control are for DVD discs but also available for VCD discs.

Moving to another chapter/index
When a title on a disc has more than one chapter or a track has more than one index, you can move to another chapter/index as follows:
● To select the next chapter/index, Press ▶▶ **NEXT** once during playback.
● To return to the beginning of the current chapter/index, press ◀◀ **PREVIOUS** once during play. To move back to the previous chapter/index, press ◀◀ **PREVIOUS** once again.
● To go to specific chapter or index directly, press **CHAPTER**, then enter the chapter or index number using the numeric keys **0-9**.
Note: If the number has more than one digit, press the keys in rapid succession.

Slow Motion
● Select ⏯ (Slow motion) in the menu bar.
● Use the ▼ (down) key to enter the Slow Motion menu.
  ➤ The player will now go into Pause mode.
● Use the ◀ ▶ (left/right) keys to select the required speed: -1, -1/2, -1/4 or -1/8 (backward); +1/8, +1/4, +1/2 or +1 (forward).
● When you select 1, the motion goes back to normal speed again.
● When **II PAUSE** is pressed, the speed will be set to 0.
● To exit slow motion mode, press ▶ **PLAY** and then ▲ (up cursor).
You can also select Slow motion speeds by using the **SLOW** key on the remote control.

Still Picture and Step Frame
● Select ◀☐▶ (picture-by-picture) in the menu bar.
● Use the ▼ (down) key to enter the picture-by-picture menu.
  ➤The player will now go into Pause mode.
● Use ◀ ▶ (left/right) keys to select the previous or next picture.
● To exit Picture-by-picture mode, press ▶ **PLAY**.
You can also move forward by using the **II PAUSE** repeatedly on the remote control.

English

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Search

● Select ⪢ (Fast motion) in the menu bar.
● Use the ▼ (down) key to enter the Fast motion menu.
● Use the ◀ ▶ (left/right) keys to select the required speed: -32, -8 or -4 (reverse); +4, +8, +32 (forward).
● When you select 1, the motion goes back to normal speed again.
● To exit Fast motion mode, press ▶ **PLAY** and then ▲ (up cursor).

To search forward or backward through different speeds, you can also use ◀◀ or ▶▶.

Repeat

DVD-Video Discs - Repeat chapter/title/disc

● To repeat the chapter during the playback, press **REPEAT.**
   ➤ REPEAT CHAPTER will appear on the player display.
● To repeat the title during the playback, press **REPEAT** again.
   ➤ REPEAT TITLE will appear on the display.
● To repeat the entire disc, press **REPEAT** again.
   ➤ REPEAT ALL will appear on the display.
● To exit Repeat mode, press **REPEAT** again.

Video CDs - Repeat track/disc

● To repeat the track during the playback, press **REPEAT**:
   ➤ REPEAT TRACK will appear on the player display.
● To repeat the entire disc, press **REPEAT** again.
   ➤ REPEAT ALL will appear on display and screen.
● To exit Repeat mode, press **REPEAT** again.

Repeat A-B

To repeat a specific sequence in a title:

● Press **(REPEAT) A-B** at your chosen starting point;
   ➤ A will appear on the screen.
● Press **(REPEAT) A-B** again at your chosen end point;
   ➤ A-B REPEAT will appear on the display, and the repeat sequence will begin.
● To exit from the sequence, press **(REPEAT) A-B**.

Scan

Plays the first 10 seconds of each chapter on the disc.
● Press **SCAN**.
● To continue play at your chosen chapter, press **SCAN** again or press ▶ **PLAY**.

Shuffle

DVD-Video discs

This function plays chapters in the random order if a title contains more than one chapter.
● Press **SHUFFLE** during play.
   ➤ The shuffle icon will appear on the screen about 3 seconds.
● To return to normal play, press **SHUFFLE** again.

Video CDs

This function plays tracks in the random order if a disc contains more than one chapter.
● Press **SHUFFLE** during play.
   ➤ The Shuffle icon will appear on the screen about 3 seconds.
● To return to normal play, press **SHUFFLE** again.

Time search

The Time Search function allows you to start playing at any chosen time position.

● Select ⊕ (Time Search) in the menu bar.
● Press ▼ (down cursor).
  ➤ The player will now go into Pause mode.
  ➤ A time edit box will appear on the screen showing the elapsed playing time of the current disc.
● Use the digit keys **0-9** to enter the required start time. Enter hours, minutes and seconds from left to right in the box.
  ➤ Each time an item has been entered, the next item will be highlighted.
● Press **OK** to confirm the start time.
  ➤ The time edit box will disappear and play will start from the selected time position.

Zoom

The Zoom function allows you to enlarge the video image and to pan through the enlarged image.

● Select ⊕ (Zoom) in the menu bar.
● Press ▼ ▲ (down/up cursor) to activate the Zoom function and select the required zoom factor: 1.33 or 2 or 4.
  ➤ The player will go into Pause mode.
  ➤ The selected zoom factor will appear below the Zoom icon ⊕ in the menu bar and 'Press OK to pan' will appear below the menu bar.
  ➤ The picture will change accordingly.
● Press **OK** to confirm the selection.
  ➤ The panning icons will appear on the screen:
  ▲ ▼ ◀ ▶ and **OK**.
● Use the ▲ ▼ ◀ ▶ (up/down/left/right) keys to pan all over the screen.
● When **OK** is pressed, only the zoomed picture will be shown on the screen.
● If you wish to zoom at any moment, press **ZOOM** and select the required zoom factor as described above.
● To exit Zoom mode, press ▶ **PLAY**.
  ➤ Playback will resume.
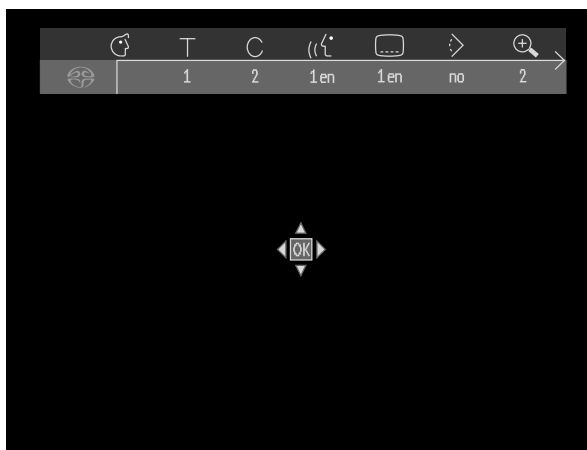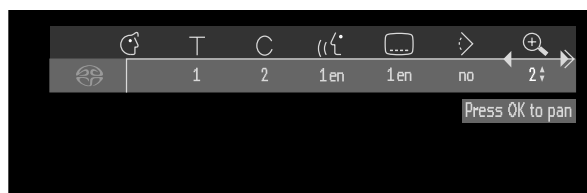
FTS-Video

- The FTS-Video function allows you to store your favorite titles and chapters (DVD) and favorite tracks (VCD) for a particular disc in the player memory.
- Each FTS program can contain up to 20 items (titles, chapters).
- Each time, the FTS program is set, the each disc information will be placed at the top of the memory in the player. When the memory is full if new program is added, the last program will be removed from the memory.
- When the disc is inserted, the program will automatically start if the disc program is still on the memory.
- There are some DVD/VCD discs cannot work the FTS program properly.
- FTS program can keep only "chapter" and "track" information in the memory. Audio language and "Subtitle" will not remain when you play next time.

Note: FTS program will keep the information in the memory and will start again even if you switch FTS Video "off" last time. To erase the program, select "clear all".

Storing an FTS-Video Program
- ● In Stop mode, select Video FTS ☑ in the menu bar.
- ● Press ▼ (down cursor) to open the menu.
  - ➤ The Video FTS menu will appear.

Storing titles/tracks
- ● Press ▼ (down cursor) to select title.
- ● Use ◀ ▶ (left/right cursors) to select the required title.
- ● Press **OK** if you wish to store the entire title.
  - ➤ The title number will be added to the list of selections.

Storing chapters
- ● Press ▼ (down cursor) on the selected title number.
  - ➤ The title number will be marked and the highlight will move to the first available chapter number for this title.
- ● Use ◀ ▶ (left/right cursors) to select the required chapter number.
- ● Press **OK** to confirm the selection.
  - ➤ The title/chapter selection will be added to the list of selections.
- ● **MENU SYSTEM** to exit from the Video FTS menu.

Erasing a title/track FTS-Video Program
- ● In Stop mode, select Video FTS ☑ in the menu bar.
- ● Use ▼ (down cursor) to select program.
- ● Use ◀ ▶ (left/right cursors) to select the required selection number.
- ● Press **OK** to erase the selection.
- ● Press ▲ (up cursor) or **MENU SYSTEM** to exit from the Video FTS menu.

If you wish to erase all selections:
- ● In Stop mode, select FTS Video ☑ in the menu bar.
- ● Use ▼ (down cursor) to select Clear all.
- ● Press **OK**.
  - ➤ All selections will now be erased.
- ● Press ▲ (up cursor) or **MENU SYSTEM** to exit from the Video FTS menu.

Switch FTS Video On or Off:
- ● Select FTS Video ☑ in the menu bar and press ▼ (down cursor).
  - ➤The video FTS menu will appear.
- ● Press ◀ ▶ (left/right cursors) to select On or Off.
- ● Press ▲ (up cursor) or **MENU SYSTEM** to exit from the Video FTS menu.

You can also switch FTS Video ON or OFF by using the **FTS** key on the remote control.
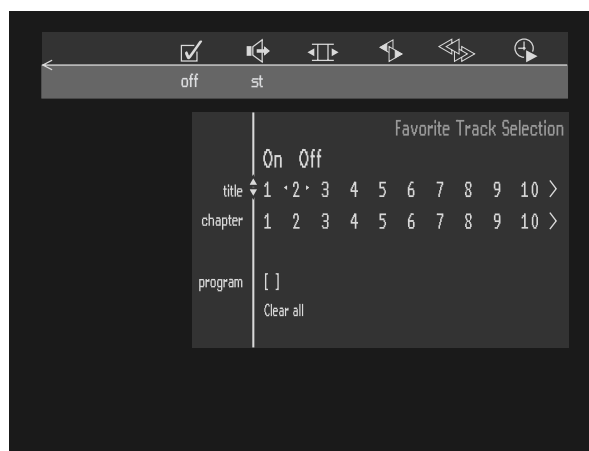
Special DVD features

DVD disc menu
Most DVD discs contain their own menu. This is called Disc Menu. Disc Menu will be appeared on the TV screen and used for selecting the programs.

●   Press **DISC MENU** on the remote control.
    ➤ Menu included on the disc will appear.
    ➤ Title menu will appears when press **TITLE** on the remote control. (Some disc don't have the title menu function.)
    ➤ You can go back the last menu when press **RETURN**.
●   To select the menu;
1   Use ▲ ▼ ◄ ► (down/up/left/right) keys or numeric keys **0-9** to select the title/chapter.
2   Press **OK** key.
    ➤ The selected title/chapter will start.

Camera Angle

If a disc contains some pictures recorded by different angles in a title/chapter, the angle icon will appear with number of the available angles.
●   Use the ▼ ▲ (down/up) keys to select the required angle in the angle icon.
●   You can also use the numeric keys **0-9** to choose the angle you want.
    ➤ After a small delay, the screen will change to the selected angle. The angle icon will keep displaying until multiple-angle-chapter is finished.

Changing the audio language

●   Select ((⌞ (Audio) in the menu bar.
●   Press **AUDIO** or ▼ ▲ (down/up cursors) repeatedly to move through the different languages.
●   You can select the language directly using the numeric keys **0-9**.

Subtitles

●   Select ⌐⌐ (Subtitle) in the menu bar.
●   Press **SUBTITLE** or ▼ ▲ (down/up cursors) repeatedly to move through the different subtitle languages.
●   You can select the subtitle directly using the numeric keys **0-9**.

Special VCD Features

Playback Control (PBC)

1   Load a Video CD with PBC and press ► **PLAY**.
    ➤ PBC menu will be appear on the TV screen.
2   Enter numeric keys **0-9** to select the track.
3   Press **RETURN** to go back to the menu before.

Enhanced use

Filter switch
ABOUT THE FILTER

Super Audio CDs have a wide playback frequency band of 100 kHz that is beyond the audible range: this means that their signals contain ultra-high-range components that conventional CDs do not have. A conventional amplifier is often not built to reproduce signals containing these components, and when Super Audio CD signals are output in their original state, noise may be generated, the amplifier's protection circuits may be activated and/or the speakers may be damaged.
To prevent this sort of trouble from occurring, the unit incorporates a filter for attenuating the ultra-high-range components, and the filter can be set STANDARD ALL, CUSTOM ST, or CUSTOM ALL using a switch on the rear panel. (This switch is set to STANDARD ALL when the unit is shipped from the manufacturing plant.)
When the unit is to be connected with a next-generation amplifier that supports Super Audio CDs and set the switch to CUSTOM ST OR CUSTOM ALL for use. This will ensure play with a wider frequency range.
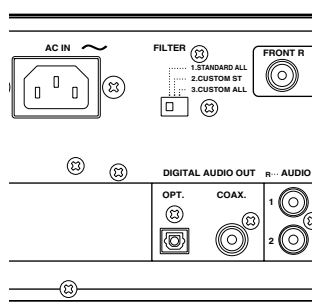
Set the switch for changing the required output signal.
Position 1 : Output signal on all speakers is set to STANDARD.
Position 2 : Output signal on front speakers are set to CUSTOM; output signal on all other speakers is set to STANDARD
Position 3 : Output signal on all speakers are set to CUSTOM.

Warning:
* Use the switch at the STANDARD ALL position if the unit is to be used with a regular amplifier. Otherwise, the amplifier and/or speakers may be damaged.
* Even when the unit has been connected with an amplifier that supports Super Audio CDs, change the switch to the STANDARD ALL position when recording Super Audio CD sound on a tape deck, for instance.
* Do not change the switch setting while playback is in progress. Doing so could generate electronic noise that could damage your speakers, etc.

Playing CD-RW discs
This unit can play back the CD-RW (ReWritable) discs as well as ordinary music CD and CD-R (Recordable) discs.

● The CD-R and CD-RW discs should contain properly-recorded TOC information so that they can be played back. With the CD recorder system, writing the TOC information in a disc is referred to as finalizing the disc. A disc cannot be recognized as a CD disc and played back unless it has been finalized properly. For details, please read the instruction manual provided with a CD recorder.
● TOC stands for Table Of Contents and contains information such as the total number of tracks and total playing time of the disc.
● This unit can play only the discs recorded in the CD-DA format designed for music reproduction. Do not attempt to play a disc containing other data, such as a CD-ROM for PCs, on this unit.
● As the playback of a CD-RW disc necessitates partial change of the player setup, it may take longer time for reading the TOC information than when a music CD or CD-R disc is played.
● The format for CD-R and CD-RW discs is stipulated in the Orange Book, Parts II and III.
Although the two formats are designed to be compatible, some portions may not capable of being played back, depending on the recording unit, the media, and the playback unit.

Before requesting service

Trouble-shooting checklist

If the SACD player appears to be faulty, consult this checklist first. You may have overlooked something simple.
Under no circumstances may you attempt to repair the system yourself; this will invalidate the warranty.

Look for the specific symptom(s). Then perform only the actions listed to remedy the specific symptom(s).

Symptom	Remedy
No power	Check to ensure that both plugs of the power cord are properly connected. Check whether there is power at the AC outlet by plugging in another appliance. Check the DISPLAY OFF switch is activated.
No sound	Check audio connections. If using a HiFi amplifier, try another sound source. DTS-CDs do not play on the SA-12S1.
Distorted sound from HiFi amplifier	Check to make sure that no audio connections are made to the amplifier's phone input.
Disc will not play	Make sure the disc label is facing upward. Clean the disc. Check whether the disc is defective by trying another disc. Check the region code of the DVD disc. Check the access control setting of DVD or/and VCD.
No picture	Check to make sure that the TV is switched on. Check the video connection. Check the VIDEO OFF is activated.
Distorted picture	Check the disc for fingerprints and clean with a soft cloth, wiping from the center to the edge. Sometimes a small amount of picture distortion may appear. This is not a malfunction.
Completely distorted picture with player menu	The NTSC/PAL switch may be in the wrong status. Press the ■ **STOP** and ▶▶| **NEXT** keys simultaneously and keep them pressed while you turn the player ON.
No color in picture with player menu Start-up screen does not appear on the display	The NTSC/PAL switch may be in the wrong status. Press the ■ **STOP** and ▶▶| **NEXT** keys simultaneously and keep them pressed while you turn the player ON.
No return to start-up screen when disc is removed	Reset by switching the player off, then on again. Check to see if the program requires another disc to be loaded.
The player does not respond to the remote control	Aim the remote control directly at the sensor on the front of the player. Avoid all obstacles that may interfere with the signal's path. Inspect or replace the batteries. Check device code setting. See the section 'Remote control device code'. Check the Remote control switch is set to INTERNAL on the back of the player.
Distorted or black-and-white picture with DVD or Video CD disc	Use only discs that match the TV system for the TV set being used (PAL/NTSC).

No audio at digital output	Check the digital connections. Check the settings menu to make sure that the digital output is set to on. Check to ensure that the audio format of the selected audio language matches your receiver's capabilities.
Buttons do not work	Reset by switching the player OFF then ON again
Audible 'clicks' from player's internal	During operation the relais of the player may be switched, resulting in an audible 'click'. This is not a malfunction.
Player does not respond to all operating Commands during playback	Operations are not permitted by the disc. Refer to the instructions in the disc inlay.

Specifications

SACD/CD

Audio characteristics		Super Audio CD	CD
Channels		6 channels(Max.)	2 channels
Frequency range		2 Hz - 100 kHz	2 Hz - 20 kHz
Frequency characteristics		2 Hz - 50 kHz (-3 dB)	2 Hz - 20 kHz
Dynamic range		114 dB	100 dB
THD (1kHz)		0.0008 %	0.0017 %
Analog output level		2.0 V	2.0 V
Digital output	Output level (coaxial)	-	0.5 Vp-p (75 ohm)
	Output level (optical)	-	-19 dBm
Format		**1 bit DSD**	**16 bit linear PCM**
Sampling frequency		2.8224 MHz	44.1 kHz
Optical readout system			
Laser type		AlGaAs	AlGaAs
Wavelenght		650 nm	780 nm

DVD/VCD

Video	Format	MPEG1(VCD)/MPEG2(DVD)
	Horizontal resolution	More than 500
Audio	Format	PCM(16/20/24 bit, 48/96 kHz fs)/Dolby Digital/MPEG
	Frequency characteristics	2 Hz - 22 kHz (PCM48 kHz) 2 Hz - 44 kHz (PCM96 kHz)
	Dynamic range	114 dB (PCM 24bit)
	THD (1kHz)	0.0013 % (PCM 24bit)
Digital output		PCM, Dolby Digital, DTS, MPEG
Video output		Composite/S/Components

* Audio characteristics is for multi channel output.

Power Supply

U version...AC 120 V, 60 Hz
Power consumption...30 W

Cabinet

Dimensions...458 (W) x 126 (H) x 379 (D) mm
Weight ....11 kg
Operating temperatures...+5°C - +35°C
Operating humidity...5% - 90% (without dew)

Accessories

Remote control unit (RC-12SAS1)..1
Batteries (AAA)...2
Stereo audio cable 3
Audio-Video cable 1
Remote control cord...1
User's guide...1
AC power cord...1
Warranty card 1

*Designs and specifications are subject to change without notice.

COUNTRY	COMPANY	ADDRESS
ALGERIE	Azur 2000	8, Lotissement Ben Hatadi, Alger, Algerie
ARMENIA	NGYIG Ltd.	47 A/75 St. Lalaiants, 375000 Yerevan, Armenia
AUSTRALIA	Jamo Australia Pty. Ltd.,	24 Lionel Road, Mt. Waverley, VIC 3149, Australia
AUSTRIA	Huber & Prohaska GmbH	Taborstraße 95 / Ladestraße 1, Gebäude Hangartner, A-1200 Wien, Austria
BAHREIN	Ambassador Stores	P.O. Box 237,141, Government Avenue, Manama,Bahrein
BANGLADESH	Target	1078, Ramjoy Mohanja Lane Asadgonj, Chittagong 4000, Bangladesh
BELGIUM	Van der Heyden Audio N.V.	Brusselbaan 278, 9320 Erembodegem, Belgium
BULGARIA	Ariescommerce GmbH	Makedonia Blvd. 16, 1606 Sofia, Bulgaria
CANADA	Lenbrook Industries Limited	633 Granite Court, Pickering, Ontario
CHINA	Guang Chang Audio International Co., Ltd.	No.38 Yushan Road, ShiQiao, Pan Yu, Guang Dong, China
CYPRUS	Empire Hifi systems Ltd.	P.O. Box 5604, Nicosia, Cyprus
CZECH REPUBLIC	Audio International	Sokolska 41, 67902 Rajecko, OKR,Blansko, Czech Republic
DENMARK	Audio Nord	Dali Allé 1, 9610 Noerager, Denmark
DUBAI	V.V.& SONS	P.O. Box 105, Dubai, U.A.E.
EGYPT	Solimco	9, El Attibaa St. Doki, Cairo, Egypt
ESTONIA	HiFi Club Estonia	Ehte 4, 90503 Haapsalu, Estonia
F.Y.R.O.M.	T.P. KODI	ul.Cedomir Kantargiev 21a, Skopje, Former Yugoslavian Republic of Macedonija
FINLAND	Audio Nord	Uudenmaankatu 4-6, Helsinki SF-00120, Finland
FRANCE	Marantz France	A division of Marantz Europe B.V., P.O. Box 301, 92 156 Suresnes Cedex, France
GERMANY	Marantz Deutschland	Hakenbusch 3, 49078 Osnabrück, Germany
GREECE	Adamco S.A.	188, Hippocratous Street, 11471 Athens, Greece
HEADQUARTERS EUROPE:	Marantz Europe B.V.	Building SFF-2, P.O. Box 80002, 5600 JB Eindhoven, The Netherlands
HONG KONG	Marantz Asia Ltd.	Unit 1706, Metroplaza II, 223 Hing Fong Road, Kwai Fong, N.T., Kowloon, Hong Kong
HUNGARY	Infovox Ltd.	Terez Krt.31, 1067 Budapest, Hungary
ICELAND	ID Electronics Ltd.	Armula 38, 108 Reykjavik, Iceland
INDIA	NOVA Audio Private	8,Punam Co-op.Society 29/30 Road#5, Union Park MUMBAI 400052, India
IRAN	Home Co.	5th floor no 878 Philips Building Enghelab ave, P.O. 11365/7844 Tehran, Iran
IRELAND	Marantz Ireland	Clonskeagh, Dublin 14, Ireland
ISRAEL	Elmor Ltd.	52 Heh Beiyar Street, Kikar Hamedina, Tel Aviv, Israel
ITALY	Marantz Italy	Via Casati 23, 20052 Monza (Milano), Italy, Servizio Consumatori 1678-20026, Numero Verde
IVORY COAST	Hifivoir	B.P. 2428, Abidjan 01, Ivory Coast
JAPAN	Marantz Japan Inc.	35-1 Sagami Ohno 7-Chome, Sagamihara-shi, Kanagawa 228-8505, Japan
KOREA	Mk Enterprises Ltd.	121-210, 2F Shinhan Bldg., 247-17 Seokyo-dong, Mapo-ku, Seoul, Korea
KUWAIT	alAlamiah Electronics Intl.	P.O. Box 8196, Salmiah 22052, Kuwait
LATVIA	Ace Ltd.	61, LacPlesa Str., Riga LV 1011, Latvia
LEBANON	AZ Electronics S.A., 1,	P.O. Box 11 2833, Beirut, Lebanon
LITHUANIA	Accapella Ltd.	Ausros, Vartu G/5, Pasazo SKG., 2001 Vilnius, Lithuania
MALAYSIA	Wo Kee Hong Electronics Sdn. Bhd.	Suite 8.1, Level 8, Menara Genesis, No. 33, Jalan Sultan Ismail, 50250 Kuala Lumpur, Malaysia
MALTA	Doneo Co Ltd.	78 The Strand, Sliema SLM07, Malta
MAURITIUS	SKR Electronics Ltd.	P.O. Box 685, Bell Village, Port Louis, Mauritius
MILITARY MARKET EUROPE	PASCO GmbH	PO BOX 1280, Sandhausen 69200, Germany
NETHERLANDS	Marantz Domestic Sales	A division of Marantz Europe B.V., Building SFF2, P.O. Box 80002, 5600 JB Eindhoven, The Netherlands
NEW ZEALAND	Wildash Audio Systems	14 Malvern Road, Mt. Albert, Auckland, New Zealand
NORWAY	Audio Nord	Sandkerveien 64, Oslo 0483, Norway
OMAN	Mustafa & Jawad Trading CO.	P.O. Box 1918, Ruwi, Oman
POLAND	Philips Polska Sp. z.o.o.	Al.Jerozolimskie 195b, 02 222 Warszawa, Poland
PORTUGAL	Corel2	Comércio de Electrónica Lda., Av. Luís Bívar, No 85 A, 1050 Lisboa, Portugal
PROFESSIONAL EUROPE	Marantz Professional Products	Kingsbridge House, Padbury Oaks, 575-583 Bath Road, Longford, Middlesex UB7 0EH, U.K.
PROFESSIONAL U.S.A.	Marantz Professional Products	Distributed by: Superscope Technologies Inc., 1000 Corporate Blvd. Ste.D, Aurora, Illino
QATAR	Almana & Partners W.W.L.	P.O. Box 49, Doha, Qatar
REUNION	Vision +	180 Rue du Marechal Leclerc, 97400 Saint Denis, Ile de la Reunion
ROMANIA	Nova Music Entertainment	5, Zagazului Str. Bl.1G,apt.18, sector 1,Bucharest, Romania
RUSSIA	Absolute Audio	7/2, Montazhnaya Street, 107497 Moscow, Russia
SAUDI ARABIA	Adawlia Univ. Electr. Apl	P.O. Box 2154, Alkhobar 31952, Saudi Arabia
SINGAPORE	Wo Kee Hong Distribution PTE Ltd.	130 Joo Seng Road, #03-02 Olivine Building, Singapore 368357
SLOVAKIA	Bis Audio s.r.o.	Nam. SNP 10, 96001 Zvolem, Slovakia
SLOVENIA	Bofex	Smartinska 152, HALA V/3, 61000 Ljubljana, Slovenia
SOUTH AFRICA	Coherent Imports (PTY) Ltd.	P.O. Box 1614, Alberton, 1450, South Africa
SPAIN	Marantz Spain	Martinez Villergas 2, Apartado 2065, Madrid 28027, Spain
SRI LANKA	The listening Room	Mezzanine Floor, The Landmark 385, Galle Road, Colombo - 3, Sri Lanka
SWEDEN	Audio Nord	Almedalsvagen 4, Gotenborg 402-23, Sweden
SWITZERLAND	Sound Company AG	Postfach, 8010 Zürich, Switzerland
SYRIA	Hamzeh & Partners	Hafez Ibrahim Str. No 117, Damascus Shalan, Syria
TAHITI	Covecolor	Av. Prince Hinoi, Cours de l'union sacré, P.O. Box 2334, Papeete, Tahiti
TAIWAN	Pai-Yuing Co. Ltd.	6th No 148 Sung Kiang Road, Taipei 10429, Taiwan R.O.C.
THAILAND	MRZ Standard Co. Ltd.	746-750 Mahachai Road, Wangburapa, Bangkok 10200, Thailand
TUNESIA	Societe EDEVIG	40, Avenue du Golfe Arabe, El Menzah, 1004, Tunesia
TURKEY	Türk Philips Ticaret A.S.	Yukari Dudullu Organize sanayi Bolgesi, 2.Cadde no.28, 81260 Umraniye-Istanbul, Turkey
U.K.	Marantz Hifi UK Ltd.	Kingsbridge House, Padbury Oaks, 575-583 Bath Road, Longford, Middlesex UB7 0EH, U.K.
U.S.A.	Marantz America Inc.	1100 Maplewood Drive Itasca, IL 60143, U.S.A.
YUGOSLAVIA	ITM Company	Omladinskih Brigada 86, 11070 Belgrade, Yugoslavia
EXPORT	Marantz Domestic Sales	A division of Marantz Europe BV,Building SFF2, P.O. Box 80002, 5600 JB Eindhoven, TheThe Netherlands
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